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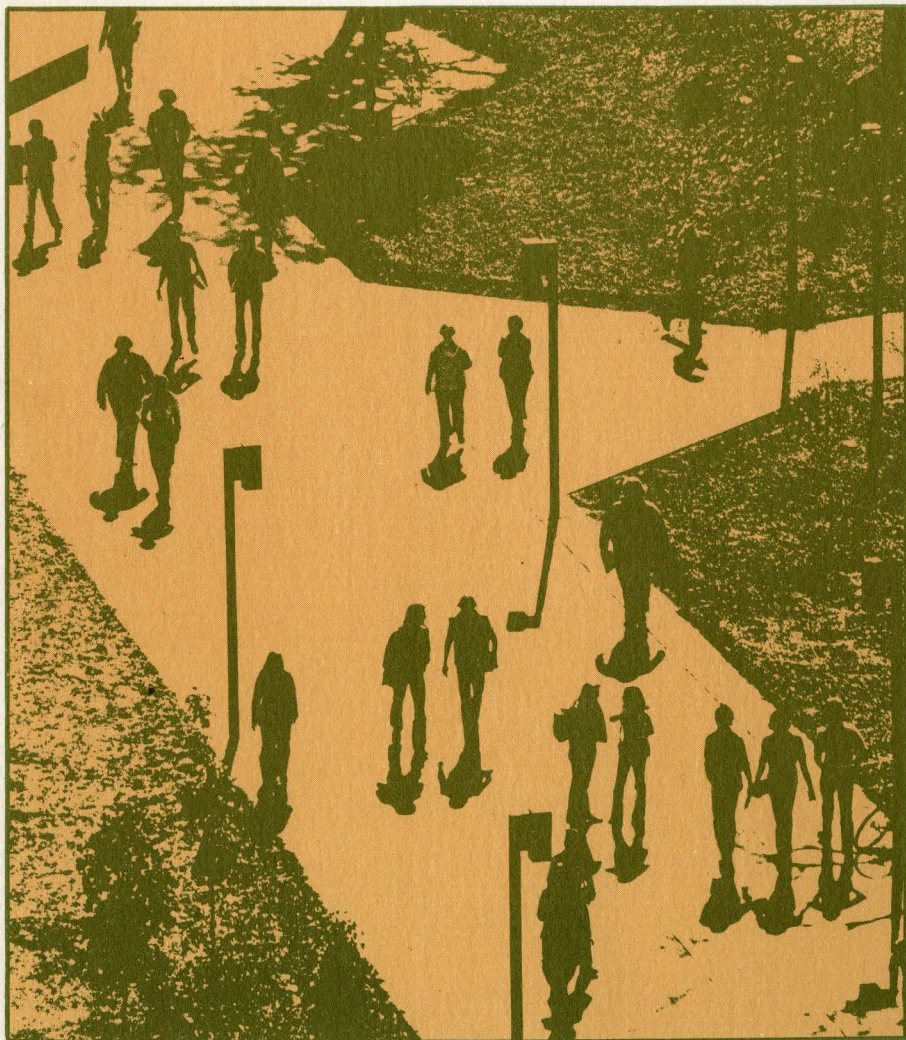
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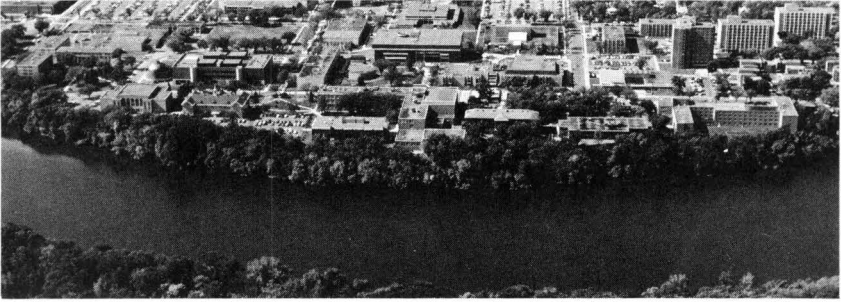
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1978 - 1979 GRADUATE BULLETIN ST. CLOUD STATE UNIVERSITY





ST. CLOUD STATE UNIVERSITY GRADUATE BULLETIN 1978 - 1979

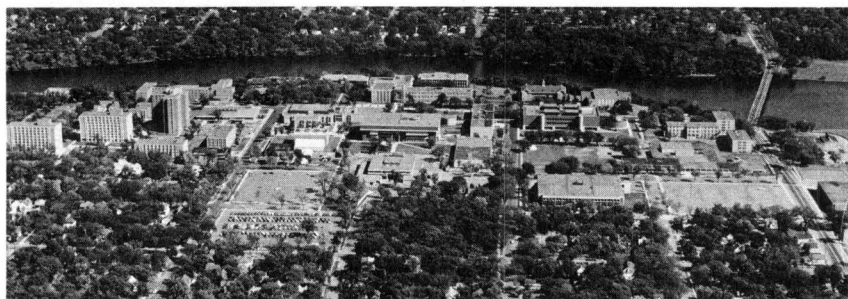
College of Business

College of Education

College of Fine Arts

College of Industry

College of Liberal Arts & Sciences



IMPORTANT

Graduate students are expected to become thoroughly familiar with the contents of this bulletin and are to assume responsibility for complying with the provisions that pertain to them. All provisions within this bulletin are subject to change without notice.

OFFICE HOURS: GRADUATE STUDIES

Regular Academic Quarter

8:00 A.M. until 4:30 P.M.

After 4:30 - by appointment

Summer Quarter

7:30 A.M. until 4:00 P.M.

Evening Schedule

During the regular academic year, the Graduate Studies Office is open in the evenings during the first week of each quarter.

UNIVERSITY INFORMATION PHONE NUMBERS

	Area Code 612
University Switchboard	255-0121
Academic Affairs	255-3143
Admissions and Records	255-2111
Business Office	255-3133
Career Planning/Placement	255-2151
Financial Aids	255-2047
Graduate Studies	255-2113
High School/Community College Relations	255-2243
Housing Office	255-2166
Information Services	255-3151

Alvin H. Schelske

Acting Dean, School of Graduate and Continuing Studies

Vernon L. Ludeman

Associate Dean of Graduate Studies

Owen A. Hagen

Associate Dean of Continuing Studies



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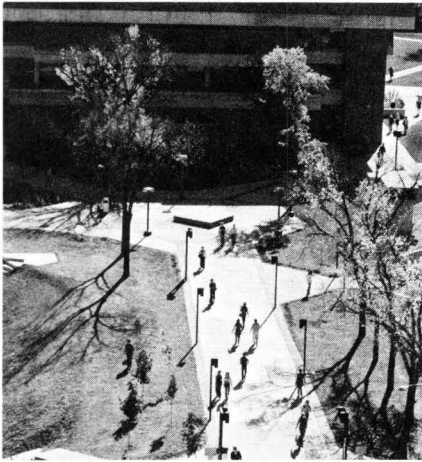
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KEY TO SYMBOLS

Quarterly course designations are provided to assist in program planning. Courses are scheduled to be offered in the quarter specified; however, circumstances and problems may necessitate change. Consult the current class schedule for further information.

QUARTER OFFERED

Fall	F
Winter	W
Spring	S
Summer	SUM
Offered upon sufficient demand	DEMAND
Offered alternate years	ALT

ABBREVIATIONS

Cr.	Credit	HIST	History
Undgr.	Undergraduate	HPER	Health, Physical Education and Recreation
Gr.	Graduate	HURL	Human Relations
Prereq.	Prerequisite	IM	Information Media
Lab.	Laboratory	IND	Industrial Education
ACCT	Accounting	LAST	Latin American Studies
AHLT	Allied Health Programs	MATH	Mathematics
AMST	American Studies	MGMF	Management and Finance
ANTH	Anthropology	MKGB	Marketing and General Business
ART	Art	MUS	Music
BEOA	Business Education and Office Administration	PE	Physical Education
BIOL	Biological Sciences	PHIL	Philosophy
CHEM	Chemistry	PHYS	Physics
CJS	Criminal Justice Studies	POL	Political Science
COMM	Mass Communications	PSY	Psychology
CSCI	Computer Science	QMIS	Quantitative Methods and Information Systems
DAN	Danish	REC	Recreation
DTS	Driver and Traffic Safety	RUSS	Russian
EAST	East Asian Studies	SEED	Secondary Education
ECON	Economics	SOC	Sociology
ED	Education	SPAN	Spanish
EDAD	Educational Administration	SPC	Speech Communication
EDT	Student Teaching	SPED	Special Education
ELED	Elementary Education	SSCI	Social Science
ENGL	English	SST	Social Studies
ENV	Environmental Studies	SSPA	Speech Science, Pathology and Audiology
ESCI	Earth Sciences	SW	Social Work
ECFS	Early Childhood and Family Studies	TECH	Technology
FREN	French	TH	Theatre
GEOG	Geography	URB	Urban Affairs
GERM	German	WS	Women's Studies
HLTH	Health		

ACADEMIC CALENDAR 1978-1979

1978 FALL QUARTER

Tuesday September 5	Faculty Workshop and New Student Day. Residence Halls open 8:00 a.m. Registration for new students 1:00 - 4:00 p.m.
Wednesday September 6	General Registration.
Thursday September 7	Classes begin.
Tuesday September 12	Late fee assessed.
Wednesday September 13	Deadline for class changes.
Wednesday September 20	Last day to pay fees.
Monday October 9	Columbus Day (Holiday).
Thursday October 12	Second half of quarter classes begin.
Friday October 13	Deadline for graduation applications.
Tuesday October 31	Deadline for dropping courses.
Friday November 10	Veterans' Day (Holiday).
Thursday November 16	
Tuesday November 21	Final Examinations.
Wednesday November 22	Fall Commencement.

1978-1979 WINTER QUARTER

Monday December 4	General Registration.
Tuesday December 5	Classes begin.
Friday December 8	Late fee assessed.
Monday December 11	Deadline for class changes.
Monday December 18	Last day to pay fees.
Friday December 22	Christmas vacation begins 5:00 p.m.
Monday December 25	Christmas Day (Holiday).
Monday January 1	New Years Day (Holiday).
Wednesday January 3	Classes resume.
Friday January 12	Deadline for graduation applications.
Friday January 19	Second half of quarter classes begin.
Tuesday February 13	Deadline for dropping courses.
Monday February 19	Presidents' Birthday (Holiday).
Monday February 26	
Thursday March 1	Final Examinations.
Friday March 2	Winter Commencement.

1979 SPRING QUARTER

Monday March 12	General Registration.
Tuesday March 13	Classes begin.
Friday March 16	Late fee assessed.
Monday March 19	Deadline for class changes.
Monday March 26	Last day to pay fees.
Friday March 30	IFO/MEA Delegate Assembly (No classes).
Friday April 13	Deadline for graduation applications.
Tuesday April 17	Second half of quarter classes begin.
Tuesday May 8	Deadline for dropping courses.
Monday May 21	
Thursday May 24	Final Examinations.
Friday May 25	Spring Commencement.
Monday May 28	Memorial Day (Holiday).

1978 SUMMER QUARTER

First Summer Term

Monday June 12	Registration and payment of fees.
Tuesday June 13	Classes begin.
Friday June 16	Deadline for class changes. Late fee assessed.
Thursday June 22	Last day to pay fees.
Friday June 30	Deadline for graduation applications.
Tuesday July 4	Independence Day (Holiday).
Friday July 14	First Summer Term ends at 4:00 p.m.

Second Summer Term

Monday July 17	Registration and payment of fees.
Tuesday July 18	Classes begin.
Friday July 21	Deadline for class changes and deadline for graduation applications. Late fee assessed.
Thursday July 27	Last day to pay fees.
Thursday August 17	Summer Commencement.
Friday August 18	Second Summer Term ends at 4:00 p.m.

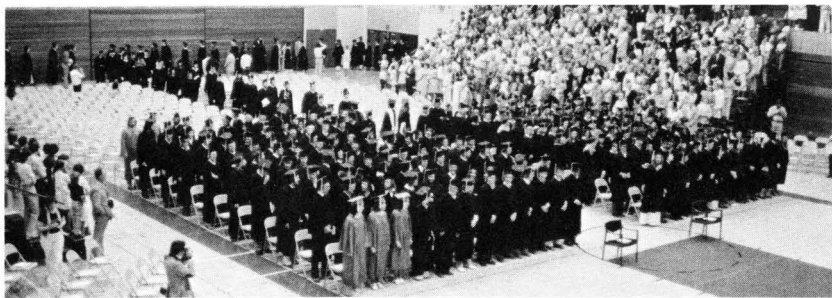
1979 SUMMER QUARTER

First Summer Term

Monday June 11	Registration and payment of fees.
Tuesday June 12	Classes begin.
Friday June 15	Deadline for class changes and fee payment.
	Late fee assessed.
Monday June 25	Deadline for graduation applications.
Wednesday July 4	Independence Day (Holiday).
Monday July 9	Deadline for dropping courses.
Friday July 13	First Summer Term ends at 4:00 p.m.

Second Summer Term

Monday July 16	Registration and payment of fees.
Tuesday July 17	Classes begin.
Friday July 20	Deadline for class changes, fee payment and deadline for graduation applications.
	Late fee assessed.
Monday August 13	Deadline for dropping courses.
Thursday August 16	Summer Commencement.
Friday August 17	Second Summer Term ends at 4:00 p.m.



ST. CLOUD STATE UNIVERSITY

HISTORY

The institution which is now St. Cloud State University first opened its doors as the Third State Normal School in September, 1869. The original building was the Stearns House, a hotel purchased by the State Legislature for \$3,000 and remodeled for use as a school. Classrooms were on the first floor, the "model school" was on the second floor, and a women's dormitory was on the third floor. The faculty consisted of Principal Ira Moore and four assistants. The student body included 42 women and 11 men. In the years since this modest beginning, the school has developed into a university of established reputation with 29 buildings and a faculty in excess of 500 members.

This progression from normal school to university follows closely the pattern of development of similar state institutions of higher education throughout the nation. Until 1898, St. Cloud Normal School was essentially a secondary school with a few students of college rank. Beginning in 1898, the school began offering a full junior college curriculum. In 1914 the high school portion of the program was dropped. In 1921 the institution was authorized by the State Legislature to adopt the name of St. Cloud State Teachers College. The word "teachers" was deleted in 1957. The name change to St. Cloud State University became effective in 1975.

Granting of the first four-year degree, Bachelor of Education, was authorized in 1925. The name of the degree was changed to Bachelor of Science in 1940.

The 1953 Legislature enabled the institution to grant the Master's degree and the 1967 Legislature authorized the Specialist degree.

Although the university has been a teacher preparation institution during most of its history, students are now enrolled in many other programs available to them. Authorization was obtained in 1946 to grant the Bachelor of Arts degree to students not majoring in education. A two-year associate degree was added in 1948. In recent years the university has added Bachelor of Music and Bachelor of Elective Studies degrees in addition to an External Studies Program.

Today the university is a multi-purpose and comprehensive institution offering a broad range of undergraduate and graduate programs of study in the College of Liberal Arts and Sciences, College of Business, College of Education, College of Fine Arts, College of Industry, and the Graduate School.

PHILOSOPHY

St. Cloud State University is committed to the pursuit of excellence in all aspects of higher education within its mission. The University strives to provide an environment which will challenge students to develop their talents, extend their intellectual abilities and interests, stimulate them to expand their creative abilities, and provide the impetus to a life-long respect and enthusiasm for learning. Students are pro-



vided the opportunity to develop the knowledge, skills, and attitudes required for entrance into a variety of careers.

The University assists students to develop an appreciation for both continuity and change and to recognize that knowledge serves to identify and preserve past human achievement as well as to provide the foundation for further progress. Students are encouraged and assisted to develop greater self-understanding; to develop respect and concern for individual worth and human dignity; to become more sensitive to the values held by other persons or groups; and to understand and assume their responsibilities to individuals, to society, and to their environment.

In this setting, it is anticipated that these experiences will prepare persons to continue to learn, to appraise their values and the values of society, and to accept their responsibility to participate in the decisions required of citizens in a rapidly changing world.

GOALS

The University will strive to achieve the following goals. Each of these goals is currently being achieved in varying degrees.

- A. The University will provide learning experiences to all persons who can benefit from such experiences in accordance with its firm commitment to equal educational opportunity.
- B. Through the curriculum and supportive educational experiences, the University will provide students with opportunities to develop an understanding of an appreciation for our rich heritage of human discovery and creativity in the arts, humanities and sciences.
- C. The University will provide selected baccalaureate and graduate programs which will prepare students for a wide

variety of careers, as well as provide programs and educational services for those not preparing for a career or not seeking a degree.

- D. Through academic programs and co-curricular activities, the University will provide students with opportunities to develop and improve their abilities to read and listen with understanding, think creatively, communicate effectively, and solve problems imaginatively.
- E. The University will provide a variety of opportunities for the continuing personal development of students in: (1) understanding and relating to others, (2) assessing their strengths and weaknesses, (3) determining their identity and values, and (4) maintaining their physical and mental well-being.
- F. The University will develop appropriate educational programs designed for persons seeking career change or advancement, reentry into a career field or personal enrichment.
- G. The University will include intercultural and international dimensions in its educational programs to enable students to gain a better understanding of other peoples.
- H. The University will reaffirm its commitment to excellence by: (1) seeking to employ and retain dedicated and professionally outstanding faculty, (2) encouraging faculty to improve and expand their qualifications, (3) maintaining and strengthening standards in teaching and academic achievement.
- I. The University will serve as a community college for the St. Cloud area and will serve as a regional institution by extending its services and programs throughout its service area in response to community needs.

ACCREDITATION AND MEMBERSHIPS

St. Cloud State University is a member of many academic and professional associations, including the North Central Association of Colleges and Schools, American Council on Education, American Association of State Colleges and Universities, American Association of Colleges for Teacher Education and Council of Graduate Schools in the United States. It is accredited by the North Central Association of Colleges and Schools, National Council for Accreditation of Teacher Education, American Assembly of Collegiate Schools of Business and National Association of Schools of Music.

EQUAL OPPORTUNITY

St. Cloud State University is an equal opportunity employer. Through an active and continuing affirmative action program, the university provides equal opportunity and treatment in employment, admissions and all academic programs.

NON-DISCRIMINATION POLICY

St. Cloud State University (SCSU) acknowledges its legal and moral responsibility to ensure equal employment and educational opportunities without regard to race, creed, color, religion, national origin, sex, age, reliance on public assistance, physical disability, marital status, or inclusion in any group or class against which discrimination is prohibited by state or federal law, including Vietnam Era veterans. Furthermore, SCSU will continue to develop and implement timely and comprehensive affirmative action procedures aimed at removing barriers to equal employment opportunity.

STUDENT RECORDS AND DIRECTORY INFORMATION

Pursuant to the Family Educational Rights and Privacy Act of 1974, students at St. Cloud State University are entitled to review records, files, documents and other materials containing information directly related to them which are maintained by the University. In accordance with regulations issued by the Secretary of Health, Education and Welfare, students may request a

hearing to challenge the content of education records to insure that the records are not inaccurate, misleading or otherwise in violation of their rights. A student may insert in his or her records a written explanation respecting the contents of such records if suggested corrections or deletions are not made by the University.

Access and review is subject to the following conditions:

1. The University has 45 days to comply with a student's written request to review his or her records;

2. All information declared confidential by the Act or excluded from the definition of "education records" in the Act is not available for inspection;

3. After reviewing records, a student may request the unit maintaining the record to remove or modify information the student believes is misleading, inaccurate or inappropriate. If the request is refused, the student may insert in the records a written explanation respecting the contents objected to or the student may file an appeal with the office in charge of the records. This appeal will be heard by a person or committee appointed by the director of the office involved.

The Act further states that certain information can be construed to be directory information which is available to the public. These are the items the University declares to be directory information available to the public: name, address, telephone listing, date of birth, major field of study, class schedule, class status (freshman, sophomore, etc.), participation in officially recognized activities and sports, weights and heights of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended. A student has the right to inform the University that any or all of the above information should not be released without his or her prior consent. Students who wish to restrict the release of this information must complete a written request to that effect at the Admissions and Records Office. After the required written request has been made, appropriate offices will be notified so that they can begin to comply with the request as soon as possible.

Any information other than the items listed above will not be released by the University without the student's specific written permission except as provided by law.



GENERAL INFORMATION

GRADUATE TUITION AND FEES*

Tuition for on-campus and off-campus courses:

	Starting Fall Quarter 1977	Starting Summer 1978
Graduate - Resident	\$13.00	\$13.65
**Graduate - Non-Resident	25.25	27.40
Graduate - Off-Campus	23.00

FEES *

Student Activity Fees, Student Union Fees and Health Service Fees are assessed to students on the basis of \$2.75 per credit hour, with a maximum charge of \$38.50 per quarter. (Effective Fall Quarter 1977.)

Exceptions: Fees will not be charged for:

1. Courses offered by the Center for Continuing Studies or other off-campus courses as defined by the State University Board.
2. Courses numbered 495, 595 or 695 (workshops).
3. Courses numbered 488 or 588 (television).
4. Courses numbered 410 or 510 (tours).

The Student Activities Committee will consider other requests for exclusion from the fee structure, forwarding recommendations to the President.

Note: There is no reduction in tuition or fees for students who audit courses.

NON-PAYMENT OF MONIES DUE THE UNIVERSITY. Registration shall not be completed until all tuition charges and fees for the period of instruction have been paid. Checks, drafts or orders offered in payment of tuition and fees which are not honored shall constitute unpaid tuition and fees. The preparation of diplomas and transcripts may be delayed until tuition and fee charges due the university have been paid and other financial obligations to the university have been settled.

*Tuition and fees are subject to change by action of the State University Board.

**Under a reciprocal agreement, North Dakota and Wisconsin residents are charged in-state tuition fees at St. Cloud State University. The in-state fee assessment for Wisconsin and North Dakota students applies to all of the other state universities in the State University System.

All students nominated for a graduate assistantship at St. Cloud State University pay in-state graduate tuition fees.



SENIOR CITIZENS. Minnesota residents 62 years of age or older may enroll in courses at St. Cloud State University without paying tuition or fees, providing space is available after tuition-paying students have enrolled. An administration fee of \$2.00 per credit hour is required when a course is taken for credit. The student also must bear the cost of laboratory fees, books and materials.

Registration is not considered completed until all fees have been paid. Students who have not completed registration on Registration Day will be assessed a Late Registration Fee of \$5 for the first day, cumulative until registration is completed, at the rate of \$2 for each additional day through the first five class days.

A fee of \$2 is charged students who desire to alter their programs after classes begin. **All fees and regulations are subject to change by action of the State University Board.**

ACADEMIC YEAR

St. Cloud State University operates on the quarter system.

There are two five-week summer terms during the summer quarter, each offering a broad spectrum of the regular academic year courses. Credits earned during the summer terms may be applied toward fulfillment of requirements of graduate programs in the same manner, and subject to the same regulations, as credits earned during the academic year.

The Summer Bulletin and quarterly program schedules may be obtained by writing the Office of Admissions and Records.

EVENING CLASSES

St. Cloud State University offers a number of graduate courses on campus during evenings of the regular school year. These courses may be used to satisfy graduate degree requirements.

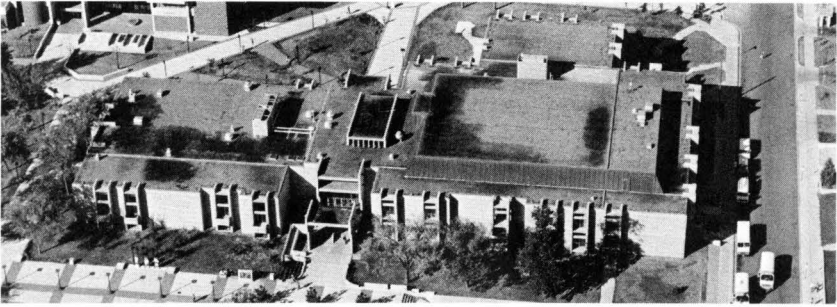
Each quarter a bulletin listing on-campus evening courses is published. Copies may be obtained by writing the Office of Admissions and Records.

PART-TIME EMPLOYMENT

There are many opportunities for students who desire part-time employment. A limited number of these are available on campus. The Office of Financial Aids will assist graduate students who need part-time employment.

Graduate students who carry the full academic load should not plan to devote any time to outside employment. In cases where it is necessary to devote time to outside employment, the student's academic load should be reduced accordingly.

A number of assistantships are available. Interested students should contact the chairperson of the major department for further information and details for application requirements. Stipends vary according to percentage of time devoted to the work assignment.



STUDENT LIFE AND DEVELOPMENT

LIVING ACCOMMODATIONS. Graduate students may contact the Housing Office, Carol Hall, St. Cloud, Minnesota 56301 to make application for on-campus housing. A contract and information regarding housing will be sent. Please complete and submit this material to the housing office. A \$25 room reservation deposit should accompany your housing application. Residents pay in advance quarterly for room and board and sign a contract for the entire academic year (exception - Shoemaker Hall is a room only quarterly contract residence hall).

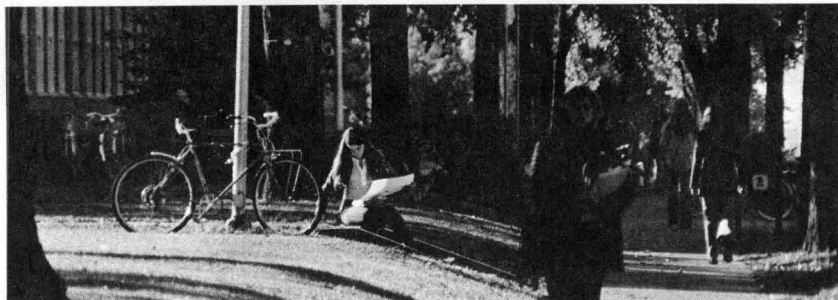
Graduate students recently accepted by the University will receive information from the Housing Office shortly after acceptance. We also assist graduate students in locating suitable off-campus housing. A listing file is maintained in the Housing Office. Students wishing to locate suitable housing in the community are requested to visit our office well in advance of actual need.

RESIDENCE HALL FACILITIES. Graduate students may request residence in the upper-class halls: Sherburne, Benton and Shoemaker. Most of the residence halls are of recent construction and include features and furnishings designed for comfortable, convenient living in an atmosphere conducive to academic achievement. All halls have areas set aside for study, activities, typing and laundry. The University furnishes the mattress, pillow, drapes, wastebasket, study desk, adequate study lighting, room chairs and closet space. Residents provide their own linen, blankets and bedspread for a twin size bed. Linen service may be purchased from a private launderer.

RATES AND AGREEMENTS. Room and board fees in residence halls are approximately \$1,161.00 per academic year for a double room. Charges for room and board are payable in advance by the quarter. Students may pay on a monthly basis if arrangements are made through the Business Office. Information about payment dates is included with each hall assignment. Late payment incurs a \$1.00 per day fee until payment is made.

All residence hall contracts for room and meals are for the full school year. The halls will be closed and no meals will be served during the days between quarters and during University holidays as listed in the Graduate and Undergraduate Bulletins. The reservation fee also serves as a damage deposit fee and is refunded when the student properly checks out of a residence hall. The damage deposit fee must be kept at \$25 while a student is in residence. The \$25 deposit will be forfeited unless the student notifies the housing office 60 days before fall quarter or 45 days before the beginning of winter or spring quarter of his/her intent to leave the University.

Room and board charges are subject to change by the action of the State University Board. No discount is made for absences. A student withdrawing from the University during the quarter receives a refund of board charges but is not refunded his room rent. Such a student must pay for board through the Friday following the date of departure. The unused room rent for the quarter only may be refunded if the student leaves for medical reasons. Room without board is available for Summer Quarter students at \$65 per term when two share a room and \$90 for a single room. Meals may be obtained a la carte at one of the food service centers and at the Atwood Center.



HEALTH SERVICE. Graduate students who pay student activity fees enjoy the same Health Service privileges as the undergraduate students. Preventive and remedial health services are provided. These services include physical examinations, communicable disease control measures, some laboratory services, consultation concerning individual health problems, some hospital and medical care, and health education.

CO-CURRICULAR ACTIVITIES. Graduate students are invited to participate in undergraduate activities (including drama, orchestra, band, and vocal music groups) which do not involve intercollegiate competition.

The University has an Intramural Athletic Department that offers all students opportunities to participate in recreational activities of an athletic nature.

The Major Programming Agencies bring to the campus a variety of entertainment furnished by nationally recognized artists representing music, dance, drama, and lecture. The programs are financed by the student activity fee; there is no admission charge to any activity except the Performing Artists Series and major pop concerts.

Opportunities for participation in student activities cover a large area of interest. Graduate students are urged to maintain a well-balanced co-curricular program to supplement their academic endeavors.





GRADUATE STUDY

GENERAL PURPOSES

The program of graduate studies is adapted to the increased maturity, the richer background, the stronger professional motivation, and the greater range of intellectual interests which characterize post-baccalaureate students who are accepted as candidates for the advanced degree at this University. The program is planned cooperatively by learner and teacher and is rooted in the important aspects of study which find focus in the recognition and definition of a problem, gathering of data, and interpretation and application of the learnings secured.

Emphasis is placed on directed reading, techniques of primary investigation, independent and constructive thinking. High standards of performance in the ability to organize and evaluate evidence and defend conclusions are required.

The purposes of graduate study at this University are:

- a. To increase the professional and academic competence of students who show promise of becoming superior workers. The programs are designed to meet the needs of those who wish to continue preparation in their major fields by extending and augmenting their professional and cultural understandings and skills.
- b. For students in professional education programs, to provide for the concentrated study of the more strictly professional phases of preparation for teaching, especially where the undergraduate program did not provide for those phases.
- c. To develop appreciation, attitudes, and understandings characteristic of educated persons.
- d. To provide some preparation and experience in research to the end that sensitivity to change and an attitude of intelligent inquiry may be fostered.

ADMINISTRATION OF THE GRADUATE PROGRAM

Administration of the Graduate Program is delegated by the President of the University to the Graduate Dean who meets with the Faculty Association Graduate Council to consider all policy matters affecting the programs of graduate study at St. Cloud State University. The Faculty Association Graduate Council consists of fifteen members elected on a prorated basis by Graduate Faculty members in the Colleges of Business, Education, Fine Arts, Industry, and Liberal Arts and Sciences.

The Faculty Association Graduate Council has the responsibility to discuss and recommend policy changes within the broad context of graduate education.

SUMMARY OF GRADUATE PROGRAMS

St. Cloud State University awards the following graduate degrees: Master of Arts, Master of Business Administration, Master of Science, and the Specialist degree. A Sixth Year Program is available in Educational Administration. A Fifth Year Program in Teacher Education is also offered.

THE MASTER OF ARTS DEGREE (M.A.) offers the candidate the opportunity to specialize in a particular subject-matter field. It is open to students with undergraduate liberal arts backgrounds as well as students who have completed Teacher Education programs. Programs of studies leading to the Master of Arts degree have been approved for the following majors: Art, Biology, English, History and Mathematics. Other programs are in the process of development. All Master of Arts programs require a thesis, creative work, or starred paper(s). Information concerning the program requirements for a particular major may be found with the course offerings for the department.

THE MASTER OF BUSINESS ADMINISTRATION DEGREE (M.B.A.) program provides opportunity for advanced specialization in business management so necessary to rapid advancement in executive positions in business, industry, and government. The program is intended to provide students facility with analytical tools, knowledge of the functional areas of business, understandings of the business environment, and opportunities to develop a specialization consistent with their interests. Students may have an emphasis in accounting, management, finance, insurance and real estate, or marketing. Program requirements may be found on page 39.

THE MASTER OF SCIENCE DEGREE (M.S.) is designed primarily to prepare teachers and school service personnel. Eligibility for these Teacher Education programs is limited to students whose undergraduate preparation qualifies them for teacher licensure. In addition, several degree programs have been designed for non-teachers. These are the programs in Community Counseling, Rehabilitation Counseling, Information Media, Special Education (TMR only) and Speech Science, Pathology and Audiology.

Elementary Education. This program is designed to strengthen and broaden the academic and professional preparation of elementary classroom teachers. This program is available on Plans A, B, and C. For specific program requirements, consult page 59 of this bulletin.

Curriculum and Instruction. Programs are available in both Junior High School and Senior High School Education. These programs are designed for teachers who are or plan to become career secondary school teachers. Special seminars and programs related to the junior and senior high school age students are included. Candidates are required to complete a concentration in subject-matter area(s). Two teaching fields are recommended for the junior high school program; one field is required for the senior high school program. Programs are available on both thesis and non-thesis plans. For specific program requirements, refer to page 64.

Secondary School Teachers. These programs are designed for teachers who desire to pursue specialization in a secondary teaching field. A minimum of an undergraduate minor is required for admission to most of the secondary majors at the graduate level. In some programs an undergraduate major is required for admission. Professional courses in foundations, curriculum and instruction are part of the program. Specialization is offered in the following areas: art, business education, English, geography, health and physical education, history, industrial education, mathematics, music, social science and physical science. A few of these programs are available under the thesis plan only. For detailed program requirements, consult the course and program listings under the major department.

Educational Administration. Programs are offered for the elementary school principal, the secondary school principal, and community education director. These programs have been approved by the Minnesota State Department of Education and are available under non-thesis plan only. For program requirements, applicants interested in the elementary

principalship should consult page 53; those interested in secondary school principalship should refer to page 53; those interested in the community education program should refer to page 54.

Minnesota licensure requires the completion of the Specialist degree to qualify for the elementary and secondary school principalship as well as the school superintendency.

Library and Audiovisual Education (Information Media). The Master's degree program is available for holders of all baccalaureate degrees. With the current emphasis on all media formats the graduate program in Information Media has been developed to support persons in media (print and non-print) for all levels of responsibility. Encompassed in the Information Media major are concepts dealing with print (book) and non-print (audio, projected, and non-projected) materials. Information Media majors should expect to become qualified for one or more of the following positions: Media Generalist, Media Supervisor, Consultant-Director-Supervisor of Academic, Public School, and Special Librarianship; Audiovisual Centers; Instructional Materials Centers; Learning Resources Centers, Curriculum Materials Centers; Information Media Centers and Systems at the Elementary and Secondary school and Junior and Senior college levels as well as Public and Special Libraries. Added information may be found on page 73.

Reading Consultants. In addition to background courses, students enrolled in the program for Reading Consultants are given opportunities to practice in the analysis and correction of reading disabilities under supervised conditions. Successful completion of this program qualifies the person for licensure as a remedial reading teacher, developmental reading teacher, or reading consultant. This program is available on both thesis and non-thesis plans. Detailed program requirements may be found on page 60.

Special Education Personnel. The major in Special Education with emphasis in mental retardation, learning disabilities (SLD), or administration is available on both thesis and non-thesis plans. The thesis plan is primarily for students who have already met teacher licensure requirements and who desire advanced work. For students who are working for initial licensure the non-thesis plan is recommended. For program requirements, consult page 66.

Community Counseling. The community counseling program is designed to provide an individualized program for students whose needs are less highly specialized. Both the thesis and non-thesis plans are available. For further detailed information, consult page 78.

Rehabilitation Counseling. The Rehabilitation Counseling program is designed to prepare counselors to assist disabled individuals to the fullest possible mental, social, physical, vocational, and economic restoration. Thesis and non-thesis plans are available. For more detailed information on the program requirements, consult page 78.

Secondary School Counseling. The Secondary School Counseling program meets the basic licensure requirements of the Minnesota State Department of Education. Students pursue courses in the various aspects of Guidance and Personnel work. This experience culminates in a supervised practicum in counseling. Available on both thesis and non-thesis plans. Program requirements may be found on page 79.

Speech and Hearing Clinicians. This program offers a combination of course work in the basic areas, seminars, clinical practicum, and research to qualify the graduate for the certificate of clinical competence awarded by the American Speech and Hearing Association. Available on Plan A or B. An outline of the program and descriptions of course offerings can be found on page 123.

THE SPECIALIST DEGREE (Ed.S.) is designed to serve a qualitative need for highly trained specialists in various fields. The emphasis in a Specialist degree program is placed on the development of competencies needed for a specific job category. A program for this degree is designed to meet the needs of students in professional areas where a Master's degree is not sufficient. The program requires one full year of graduate study beyond the Master's degree.

18 / GRADUATE STUDY

Specialist degree programs are offered by the Department of Library and Audiovisual Education and the Department of Educational Administration. The graduate program offered by the Department of Library and Audiovisual Education in Information Media has been developed to support persons in media (print and nonprint — library science, audiovisual education, television) for all levels of responsibility. The Specialist degree program offered by the Department of Educational Administration is designed for four distinct groups: the elementary school principal, the secondary school principal including the junior high school principal, the superintendent of schools, and administrator of special education programs. For information regarding specific requirements for the Specialist degree, consult the programmatic section of this bulletin for the major of your interest.

A Sixth Year program in school administration is also available. For further information, refer to page 54.

FIFTH YEAR PROGRAM IN TEACHER EDUCATION. A planned Fifth Year Program is available for those teachers who do not desire to work for a Master's degree or for those who do not otherwise qualify to work for the Master's degree. Through careful advising, it is anticipated that the fifth year of work will be integrated with the first four years of the student's preparation. A minimum of 45 credits is required, about one-third of which must be taken at the graduate level. The minimum grade point average required for successful completion of this program is 2.25 ("C+"). For further details on the Fifth Year Program, see page 33.

□□□ □□ □□□□

Social Security Number

ST. CLOUD STATE UNIVERSITY
GRADUATE OFFICE
APPLICATION FOR ADMISSION TO GRADUATE STUDY

Date _____

NAME: _____
Last First Middle Maiden

1. Present Address: _____
Number & Street City State Zip
Home Phone Number-Area Code Office Phone Number-Area Code

2. Permanent Address: _____
(If different than present address)
Phone Number-Area Code

3. Resident of what state? _____

4. Plans for Graduate Study: _____

a. I am on a Sabbatical leave: Yes _____ No _____ School District _____

b. I am applying for a graduate assistantship. Yes _____ No _____

c. Proposed Graduate Program (complete only one of the following lines)

Master of Arts (M.A.): _____ Plan _____

Master of Business Administration (M.B.A.): _____

Master of Science (M.S.): _____ Plan _____

Specialist Degree (Ed.S.): _____

Sixth Year Program: _____

Fifth Year Program in Teacher Education: _____

Certification only: Field _____

- d. Date to begin graduate study at this University: Quarter _____ Year _____
5. Education: Name of Institution Dates Attended Graduation Date Degree
- a. High School _____ 19__ to 19__ _____, 19__
- b. Undergrad. College _____ 19__ to 19__ _____, 19__
- Undergrad. College _____ 19__ to 19__ _____, 19__
- c. Graduate School _____ 19__ to 19__ _____, 19__
- d. Undergraduate Major(s) _____ Undergraduate Minor _____
- e. If undergraduate degree not complete, date expected _____ 19__
- f. Credits beyond highest degree _____
- Quarter Semester College
6. Biographical Data:
- a. Date of Birth: _____ b. Sex: _____
- c. Present Position: _____
- Title and Location
- d. Immediate Supervisor: _____
- Name and Title
- e. Previous Positions: _____
- Title, location years - list most recent first
7. List three references who are familiar with your professional performance.

(For Office use only)

Name & Title

____ Sent ____ Received

Address

Name & Title

____ Sent ____ Received

Address

Name & Title

____ Sent ____ Received

Address

____ Received

8. Materials Required

a. Application

____ Received

b. \$10 Matriculation Fee (not required of students who attended St. Cloud State University prior to Winter Quarter, 1966)

____ Received

c. Transcripts (two copies required - all transcripts must be received directly from undergraduate college). Students graduating from St. Cloud State University are not required to have transcripts sent.

Application received

____ Date

9. Test scores on the required Entrance Tests

MBA applicants take the Graduate Management Admissions Test (GMAT)

Completed: Date _____ Will complete: Date _____

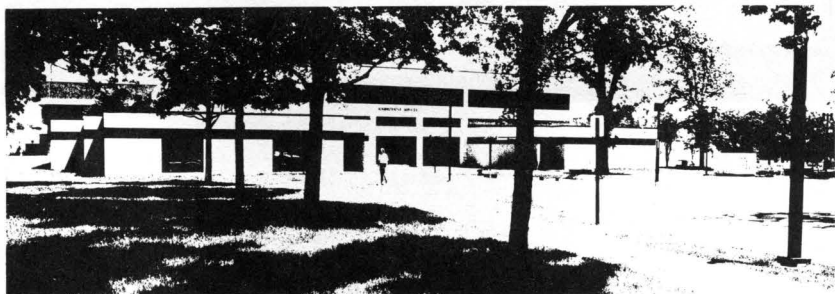
All other Master's degree applicants take the Graduate Record Examination, Aptitude Test.

To see if an Advanced Test is also required, consult the Graduate Bulletin.

Completed: Date _____ Will complete: Date _____

Applicants for the Fifth Year Program in Teacher Education are not required to take the Entrance Test.

Signature of Applicant



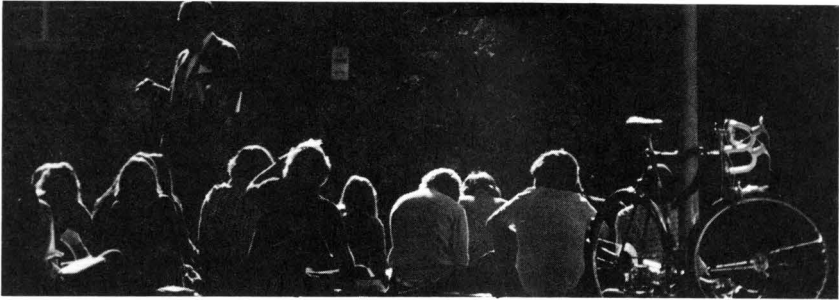
ADMISSION TO GRADUATE STUDY

ADMISSION PROCEDURES

A student who wishes to pursue a program of graduate studies at St. Cloud State University should contact the Dean, School of Graduate and Continuing Studies, St. Cloud State University, St. Cloud, Minnesota 56301 for application materials. All application materials should be returned to the Graduate Studies Office far enough in advance of the proposed date of registration to allow adequate time for complete processing of the application prior to registration. The following materials are required:

1. Completed "Application for Admission to Advanced Studies" accompanied by a \$10 **non-refundable** Matriculation Fee made payable to St. Cloud State University. (Not required of students who attended St. Cloud State University prior to Winter, 1966.)
2. Recommendations. The Graduate Studies Office will send the required form to the references listed on the application form.
3. Official Transcripts. Two copies of the applicant's official transcripts must be sent directly to the Graduate Studies Office by each college or university previously attended. Applicants who apply before receiving the baccalaureate degree will be required to submit supplementary transcripts showing that the degree has been conferred. **Transcripts which the student submits personally are not acceptable** (See Provisional Admission to Graduate School). Graduates of St. Cloud State University are not required to send transcripts of credit earned at this institution.
4. Entrance Test Score. Students seeking the Master of Arts degree, Master of Science degree, Sixth Year Program, or the Specialist degree are required to take and submit official scores for the **Graduate Record Examination**, Aptitude Test. Advanced tests are required by many major departments. (See Admissions Test Information, page 22.) Students seeking the Master of Business Administration degree must take the **Graduate Management Admissions Test**.

When all these materials are complete, the Graduate Studies Office will conduct the initial evaluation. Applicants who satisfy the requirements of the Graduate School will be processed to the appropriate graduate department for their recommendation. Students should respond immediately to all departmental correspondence regarding their admission to graduate school. Following receipt of the departmental recommendation, the Graduate Studies Office will notify the applicant of the action taken on the graduate application submitted for admission. When an applicant is accepted for graduate study,



an adviser will be assigned by the department. The adviser will help the student formulate a plan of study leading to the accomplishment of the student's objectives in pursuing graduate work.

For additional departmental admission information, students must refer to the appropriate Departmental Requirements and Course Listings.

ADMISSION POLICY

To be considered for admission to a Master's degree program an applicant must have been granted a baccalaureate degree from an accredited college or university and have achieved a "2.6" grade point average over the last two years of undergraduate education (6 full quarters or equivalent) **OR** have achieved an acceptable score on the required entrance examination. All students, however, must furnish a score on the appropriate entrance test required.

Higher standards for admission to the degree program may be established by a department.

Applicants who hold a baccalaureate degree from an unaccredited college or university may be considered for acceptance to a Master's degree program. A careful examination of the applicant's previous record and the entrance examination scores will be used as the basis for recommendation for admission. (Applicants who are admitted under these conditions will be re-evaluated upon completion of 12 graduate credits earned at St. Cloud State University.)

Applicants who do not meet the standard admission requirements may be permitted to demonstrate their scholarship and qualify for acceptance by completing a limited program of graduate course work. Further information pertaining to this alternative may be obtained from the Graduate Dean.

To be considered for admission to a Specialist degree in the Department of Educational Administration, an applicant must have been granted a Master's degree from an accredited college or university, and must have achieved a "3.2" grade point average over the credits earned for the Master's degree program. In addition, test scores on the Graduate Record Examination Aptitude Area and the Advanced Test in Education as well as two official transcripts of the applicant's undergraduate and graduate education must be submitted to the Graduate Studies Office.

Provisional Admission to Graduate Study (Master of Science and Master of Arts degree programs only). If an applicant is presently in the final stages of undergraduate education and has achieved a minimum of "2.6" grade point average in the last 96 quarter hours of credit (or equivalent), provisional acceptance may be granted prior to being awarded an undergraduate degree and/or prior to completion of entrance test requirements. Application blanks for Admission to Graduate Study may be secured upon request by writing to the School of Graduate and Continuing Studies, St. Cloud State University. Two transcripts of the applicant's incomplete undergraduate record must be sent by the undergraduate school. **Final** transcripts must be submitted when the baccalaureate degree is completed. The required entrance test battery (GRE) must be taken prior to or during the first quarter of graduate work taken on this campus.

ADMISSION TEST INFORMATION

Regulations for graduate education require that all students seeking a degree take either the Graduate Record Examination Aptitude Test or the Graduate Management Admission Test. Many departments also require the Graduate Record Examination Advanced Test in the major field. The following majors require the Advanced Test as indicated:

Major	Advanced Test
Administration of Special Education	Education
Biology	Biology
Community Education Administration	Education
Curriculum and Instruction	Education
Elementary School Administration	Education
Elementary Teaching	Education
English	Literature in English
Geography	Geography
General School Administration	Education
History	History
Information Media	Education
Music	Music
Reading Consultant	Education
Secondary School Administration	Education

These tests should be taken at least three months prior to the date the student intends to begin classes. Pre-registration directly with the Educational Testing Service is required several weeks in advance of test administration dates. Detailed information regarding the test and registration forms may be obtained from the Graduate Studies Office or from the Educational Testing Service, Box 955, Princeton, New Jersey 08540 or 1947 Center Street, Berkeley, California 94704.

An applicant who has taken the Graduate Record Examination more than five years prior to the date of application to graduate school will be required to repeat the examination.

TOEFL: Foreign Students. All foreign students whose native language is other than English must take the "Test of English as a Foreign Language" and request that the score be sent to the School of Graduate and Continuing Studies. This score is submitted as evidence of the applicant's ability to utilize English as a language of instruction. Under normal circumstances a score of 550 is required on the TOEFL for admission to a graduate degree program.

The "Test of English as a Foreign Language" does not replace the "Graduate Record Examination" or the "Graduate Management Admission Test" entrance tests. The TOEFL is required of all foreign students in addition to the GRE or GMAT. When requesting information which pertains to the TOEFL, GRE, or the GMAT, write directly to: Educational Testing Service, Box 955, Princeton, New Jersey, U.S.A. 08540.

Foreign students are required to follow the same procedures for entrance into graduate school as all other applicants. For entrance and admission requirements to a Master's degree program at this University, please read pages 20, 21 and 22 of this bulletin.

REGISTRATION

Registration procedures are established by the Office of Admissions and Records and published with the quarter or summer schedules.

Students intending to pursue course work toward a graduate degree who have not completed all admission requirements and who have not been formally accepted into a degree program must register as Special Students subject to all regulations of that category.

Late Registration. Students may, with permission, register within a period no longer than ten class days after a regular quarter begins or four class days after a summer term begins. For a regular quarter the late registration fee is \$5 after the third class day and \$2 for each succeeding day. For a summer term the late registration fee is \$5 after the third class day.

Students may register for off-campus courses no later than the second class meeting. Late registration fees do not apply to off-campus courses.

Special Student. This is a classification for those students who do not intend to pursue a graduate program at this institution or who wish to register for course work prior to their formal acceptance into a graduate program. A maximum of 9 credits earned as a Special Student or the credits completed in the first quarter of registration (whichever is greater) may be applied to a graduate degree program. Credit may be applicable to a degree program by meeting all requirements for Admission to Graduate Study and submitting a petition to the Graduate Office. A special student will be admitted to classes only after degree students have been accommodated.

Special students are considered to be pursuing post-graduate study and are not classified as graduate students. However, only students who have completed a baccalaureate degree may register for graduate-numbered courses (500-600) as a Special Student.

To obtain special student status, contact the Office of Admissions and Records and complete a Special Student application.

Registration by Undergraduate Students. Undergraduate students who are in their last quarter and who have 12 quarter credits or less to complete for graduation from this University, may petition to enroll in graduate courses not to exceed the normal load. (Petition forms are available in the Graduate Office.) Approval of the petition will be based on the potential admissibility of the student to the graduate program. The maximum load permitted is 16 quarter credits of undergraduate and graduate credit combined. Only nine quarter hours of graduate credit earned at St. Cloud State University prior to formal acceptance by the department to a graduate program will be permitted to apply toward completion of a Master's or a Specialist degree.

PROGRAM APPROVAL

Program Approval is required for all Master's and Specialist degree candidates. Students are required to develop a program of studies which must be approved by the student's adviser and the Graduate Dean. Those students writing a thesis or field study must schedule a preliminary thesis or field study conference to obtain approval of the preliminary research outline.

Program Approval may take place at any time after the student has been admitted to a Graduate Program, but **prior to the completion of 24 credits** applicable to the graduate program (including transfer credits). Each student must contact the Graduate Studies Office to request the program forms.

To be eligible, the student must have:

1. Satisfied all conditions attached to admission.
2. Satisfactorily completed the departmental examination(s).

(Contact adviser of the Graduate Studies Office to determine if required.)

The Graduate Studies Office will review the student's record to determine eligibility for an Approved Program according to the criteria listed above, and notify the adviser of the student's status.

APPROVED PROGRAM (Required of Plans A, B, and C). For most Master's degree programs two plans are available, Plan A and Plan B. Plan C is also offered by a few departments. Under the Plan A program, a Master's thesis is required; however, in specific departments, a Creative Work may be completed in lieu of a Master's thesis. Under the Plan B program, additional course work is required and in certain departments starred paper(s) are required. Under Plan C, additional course work is required and a professional portfolio prepared. For specific details refer to the section on departmental requirements and course offerings.

Both Specialist degree programs require a field study. Students pursuing a Specialist degree are required to file a program of study which shall include credits for a research project. In submitting the Approved Program and arranging for the research conference, students shall be guided by the regulations in the paragraphs to follow.

The student should develop a proposed program of course work in consultation with the assigned adviser, according to procedures established by the major department. The

student should review the program requirements outlined in this bulletin. Upon being approved, all three copies of the program should be returned to the Graduate Studies Office by the adviser.

The Dean, School of Graduate and Continuing Studies, will review the proposed program and give final approval. In cases where changes are required, before final approval is given, the Dean will consult with the adviser and the student.

Once the program has been approved, any deviation from it must receive **prior** approval of the adviser and the Graduate Dean through the petition process. These petitions for change are available in the Graduate Studies Office and must be submitted via the adviser to the Graduate Studies Office.

When the Approved Program is given final approval, the student will receive notification that it meets the requirements for the Master's or Specialist degree program.

THESIS OR FIELD STUDY CONFERENCE. Students on Plan A (thesis) or the Specialist degree program must arrange for a preliminary thesis or field study conference. This conference may be scheduled at any time after the student has been fully accepted into a graduate program, but at least one quarter prior to the Final Oral Examination. In consultation with the student's adviser, an outline of the proposed thesis or field study shall be prepared and four copies submitted to the Graduate Studies Office two weeks prior to the time requested for the research conference. The student should then request the Graduate Studies Office to schedule a preliminary thesis or field study conference. The student's adviser, one other Graduate Faculty member from the major department, and one other Graduate Faculty member from a related field (approved by the Graduate Dean) shall comprise the faculty representation. These conferences are not held during final examination week.

Preparation of Thesis or Field Study. The following general regulations govern the preparation of a thesis or a field study:

1. The Master's thesis or the field study for the Specialist degree shall be carried out under the supervision of the research committee, appointed at the preliminary research conference, and consisting of the student's adviser, a Graduate Faculty member from the major department, and another Graduate Faculty member from a related department (approved by the Graduate Dean) chosen on the basis of his/her potential advisory value in the area of the research undertaken. This committee shall comprise the membership of the student's Final Evaluation Committee.
2. Registration for a Master's thesis or field study is completed in the same manner as all other course work; however, the credits for thesis or field study may be spread over more than one registration period. The student will be required to have an arranged course form signed by his/her adviser when he/she comes to register for the course. These can be obtained through the Admissions and Records Office.
3. The satisfactory completion of the research will be reported as "S" (satisfactory). If all requirements for the research have not been met by the end of the quarter or term in which it was registered, the work will be reported as "In Progress." The Master's thesis must be completed within the 7-year time limit set for the completion of the Master's degree. The field study must be completed within the 5-year time limit set for the completion of the Specialist degree.
4. Four copies of the thesis or field study, each containing an abstract, shall be filed with the Graduate Studies Office no later than three weeks before the completion of work for the appropriate degree. Before the material is submitted, it must have the approval of the respective committee. When the final evaluation committee has approved the research in its final form, four copies shall be submitted to the Graduate Studies Office for binding. An additional thesis or field study is required if the student wants a personal copy. All copies shall be bound in black buckram covers, and the title shall be printed in gold lettering on the front cover and back edge.
5. Three additional copies of the abstract of not more than 400 words shall be submitted to the Graduate Studies Office; the abstract shall include the signature of the chairperson indicating approval before it is submitted to the Graduate Studies Office. All abstracts are reprinted and submitted for publication, and therefore, must follow the style sheet of the St. Cloud State University which is available

upon request in the Graduate Studies Office.

6. The student should contact the Graduate Studies Office to obtain **A Manual for the Preparation of Field Studies, Theses, Creative Works, or Starred Paper(s)**. This manual provides detailed information and instructions.
7. Standards for the preparation of field studies (for the Specialist degree), theses, creative works, and starred paper(s) are those published by the Graduate Studies Office, **A Manual for the Preparation of Field Studies, Theses, Creative Works, or Starred Paper(s)**, and those embodied in **Form and Style in Thesis Writing** authored by William G. Campbell and Stephen V. Ballou, and published by Houghton Mifflin, unless otherwise specified by the department and approved by the Graduate Studies Office. When a conflict exists in standards, format, or style, the manual published by the Graduate Studies Office will take precedence over any other manual approved for department use.

FINAL EVALUATION PROCEDURE. A candidate for the Master's and Specialist degree shall complete the final evaluation during the last quarter of the graduate program. Students who have earned less than a "B" average in the major and in all graduate credits earned shall not be permitted to complete the final examination.

All candidates on thesis and Specialist degree programs are required to pass a final oral examination. In addition, some departments require a written comprehensive examination which must be taken at least one week prior to the final oral examination. All candidates on non-thesis plans are required to pass a final written comprehensive examination.

Final Oral Examination. At least three weeks prior to the close of the quarter in which graduation is anticipated, the student must request the Graduate Studies Office to schedule a final oral examination. At this time four copies of the thesis or field study, each containing an abstract, must be submitted to the Graduate Studies Office for approval.

The final oral examination is conducted by the final evaluation committee, consisting of three members. Membership shall consist of adviser, another Graduate Faculty member from the major department, and one Graduate Faculty member appointed by the Graduate Dean. A majority vote of the final evaluation committee is required to pass the oral examination. All Final Evaluation Conferences are open.

Candidates completing a Plan B Master's degree program which requires the submission of starred papers must pass a final oral examination in accordance with the procedures described in the paragraphs above. The final oral examination is based on the starred papers written in conjunction with courses approved in the student's major area of concentration. At the option of the department, candidates also may be required to complete a final written examination.

Written Comprehensive Examination. Candidates for the Master's degree under Plan B are required to pass a final written comprehensive examination based on the major. This examination is developed, administered, and evaluated by members of the staff responsible for the major program. All candidates must notify their adviser of their intention to complete the final written comprehensive examination at the beginning of the quarter in which completion of all degree requirements is anticipated. The candidate's adviser is the chairperson of this examination committee, which is appointed by the department chairperson, and which shall consist of at least three members. A majority vote of the examining committee is required to pass the written comprehensive examination. A candidate who fails in the first attempt may, with the approval of the adviser, take the examination a second time, but the candidate may not re-take the examination during the same quarter or summer term in which the exam was failed. A third chance to pass the examination shall not be permitted.

STARRED PAPERS. Certain Plan B programs require that starred paper(s) be written in conjunction with approved graduate courses in the student's major area of concentration. These courses must be identified on the Approved Program forms. Four copies of each starred paper must be submitted to the Graduate Studies Office at least three weeks prior to the end of the quarter or term the student plans to graduate. These papers are submitted to the examining committee and form the primary basis for the final oral examination. (There is no separate registration for starred papers.) At the option of the

department, candidates also may be required to complete a final written examination.

The final oral examination must be held prior to final examination week. As with the thesis, the examining committee is composed of the student's major adviser, another departmental member, and a third member from a related field approved by the Graduate Dean. When the starred papers have been approved and signed by the evaluation committee, they shall be filed with the Graduate Studies Office for binding and distribution.

Prior to typing the starred papers, the student should contact the Graduate Studies Office for detailed instructions for the preparation and filing of these papers.

CREATIVE WORK

Statement of Qualifications. A student interested in completing creative work (in lieu of the traditional Master's degree thesis or as may be required by a specific department) must show evidence of creative ability before being accepted as a candidate for the advanced degree. This evidence submitted by the students from the Departments of Art, English, and Music (creative projects, play-writing, performance or production, etc.) must be presented to a designated committee for critical review and approval. In certain areas of the fine arts, a student may be required to produce evidence of creative skill by submitting critical reviews, letters of recommendation, and/or demonstration(s). For further information, contact the appropriate department chairperson.

Qualifying Conference. A qualifying conference is held prior to the student's registration for the final 15 credits of work. The purpose of the conference is to serve as an evaluation of the creative work accomplished prior to the time of the conference and to provide direction for the final creative work.

Registration for Creative Work. Registration for Creative Work (698) will take place in the same manner as for all other course work. These credits, however, may be earned over more than one registration period. (For grading information on Creative Works, see "MARKS" on page 29.)

Arrangements for the Final Evaluation Conference. Arrangements for the final evaluation conference must be made through the Graduate Studies Office. The final evaluation conference must take place during the last quarter or term of the student's graduate program. Four copies of the creative work must be submitted to the Graduate Studies Office at least two weeks prior to the date of the final evaluation conference. Final evaluation conferences are not scheduled during final test week.

Submission of Final Work. Four copies of the final creative work must be submitted to the Graduate Studies Office and approved for binding. This creative work includes a written statement of artistic intent and such supporting materials as are applicable. Other than form and style of the text, the binding of the contents of the creative work shall be in accordance with standard thesis requirements.

The statement of artistic intent may contain such information as a description of the work undertaken, the technique(s) involved in the work, and related subject matter. This information and data shall be approved, bound, and placed on file as described in **A Manual for the Preparation of Field Studies, Theses, Creative Works, or Starred Paper(s)** which is available in the Graduate Studies Office.

Final Evaluation Committee. The final evaluation committee shall consist of three members who shall judge the artistic merits of the creative work. Membership shall consist of two graduate faculty members from the appropriate department and an artist or authority selected from outside the University. Before an artist or consultant from outside the University is selected as a committee member, the Graduate Studies Office must grant approval. Approval must be obtained at least 30 days in advance of the final evaluation conference. A form for this purpose is available in the Graduate Studies Office.

A fourth voting member may be selected from another department within the University if deemed appropriate by the major adviser and/or the Graduate Dean.

The members of the final evaluation committee must sign the approval page to indicate their acceptance of the creative work.

GRADUATION

APPLICATION FOR GRADUATION. A candidate for the Master's or the Specialist degree, the Sixth Year Program or the Fifth Year Program must file an Application for Graduation with the Dean, School of Graduate and Continuing Studies, at the beginning of the quarter or term in which the work for the degree is anticipated to be completed. Deadline dates for application for graduation are listed in the Academic Calendar section of this **Bulletin**. In addition, a Certificate of Readiness for Graduation must be filed in the student's behalf by the adviser.

Candidates completing a Plan B Master's degree program which requires the submission of starred papers should refer to paragraph three under final oral examination.

SUMMARY OF REQUIREMENTS FOR GRADUATION. It is the responsibility of the Graduate Dean to certify that a student has met all the following requirements for the degree sought.

1. Application for graduation must have been submitted at the beginning of the quarter which the degree is to be granted.
2. The student must have satisfactorily completed all courses required on the approved program. All changes must be substantiated by an approved petition.
3. The student must have maintained a "B" (3.0) average in the major and in the total course work. For the Specialist degree in Educational Administration, a grade point average of 3.25 is required over the course work taken in the Specialist degree program.
4. The student must have satisfactorily completed the required final examination(s), written, oral, or both.
5. A student completing a thesis or field study must have submitted four approved copies to the Graduate Studies Office for binding. Three additional abstracts must have been submitted.

CONFERRING OF DEGREES. Degrees are conferred and commencement exercises held at the close of each quarter. While attendance at these exercises is not compulsory, students are urged to participate. Students will receive instructions from the Academic Affairs Office.

ACADEMIC REGULATIONS

FIELD STUDIES AND THESES. Graduate students are expected to be able to (1) define problem areas; (2) locate and identify material relevant to the problem; (3) interpret and evaluate the materials; and, (4) report the findings in a logical and intelligible form.

Students enrolled in Plan A of the Master of Arts and the Master of Science programs will show evidence of the mastery of these skills by the completion of a Master's thesis. A student whose Master's degree program requires completion of a thesis must earn a minimum of 45 credits including six to nine hours of thesis credit. (For Community Counseling and Rehabilitation Counseling, 67 credits.) For a complete outline of course requirements and thesis option, consult the program description listed under the major department.

Students enrolled in the Specialist degree program must show evidence of the mastery of research skills through the completion of a field study approved by the appropriate graduate committee. Two to twelve credits may be earned in a field study towards fulfillment of the Specialist degree requirements in the Information Media program and five to eleven credits in the Educational Administration program.

CREATIVE WORK. A student who is interested in completing creative work (in lieu of the traditional Master's degree thesis) must show evidence of creative ability before being accepted as a candidate for the advanced degree. In certain areas of the fine arts, a student may be required to produce evidence of creative skill by submitting critical reviews, letters of recommendation, and/or demonstration(s). For further information, contact the appropriate department chairperson. (For grading information on Creative Works, see "MARKS" on page 29.)

ALTERNATE PLAN (Plan B). Many departments offer a non-thesis option for the Master's degree. Where departmental requirements permit, the student may select either the thesis or non-thesis plan, subject to approval by the major department. Plan B students must earn a minimum of 48 credits in graduate-level course work. (For Information Media, 51 credits; Community Counseling and Rehabilitation Counseling programs, 70 credits.)

STARRED PAPER(S). Certain Plan B programs require that starred paper(s) be written in conjunction with approved graduate courses in the student's major area of concentration. These courses must be identified on the Approved Program forms. Four copies of each starred paper must be submitted to the Graduate Studies Office at least three weeks prior to the end of the quarter or term the student plans to graduate. These papers are submitted to the examining committee and form the primary basis for the final oral examination. (There is no separate registration for starred papers.) At the option of the department, candidates also may be required to complete a final written examination.

The final oral examination must be held prior to final examination week. As with the thesis, the examining committee is composed of the student's major adviser, another departmental member, and a third member from a related field approved by the Graduate Dean. When the starred papers have been approved and signed by the evaluation committee, they shall be filed with the Graduate Studies Office for binding and distribution.

Prior to typing these projects, the student should contact the Graduate Studies Office for detailed instructions for the preparation and filing of these papers.

ALTERNATE PLAN (Plan C). Departments offering Plan C require a minimum of 54 credits in graduate-level course work and the completion of a professional portfolio. A combined total of 30 transfer and extension credits may be accepted on Plan C; however, not more than 15 graduate credits will be accepted in transfer.

COURSE LOAD. The normal student load is 12 credits per quarter for the regular and summer quarters. This definition of a load applies to students receiving State, Federal or other benefits. Benefits for which students are eligible may vary in accordance with the load students carry.

Normal progress is also required in many cases for the continuance of benefits.

Normal progress is defined as satisfactory completion (a mark of C or above on an A-E scale or S on an S/U scale) of at least half of all the credits attempted for which tuition was paid during the quarter.

A student may be permitted to carry a maximum load of 16 quarter hours. Requests for permission to carry loads in excess of 16 credits per quarter will not be approved.

During the Summer Quarter (two terms), the normal load is also 12 quarter hours. The maximum credits which can be earned in both terms is 16 quarter hours. The maximum load in any one term is 9 quarter hours.

TRANSFER POLICY. A maximum of 15 quarter hours of graduate work completed at other accredited colleges and universities or extension credit earned from this University may be considered for application to the program. To be considered for transfer, the credits must have been residence credits, earned at an institution approved to give graduate work at the time the credit was earned, must be appropriate to the student's program, must be approved by the adviser and the Graduate Studies Office, and must be recorded on the approved program forms. Two official transcripts must be sent directly to the Graduate Studies Office by the institution awarding the credit. The grade recorded for these credits must be "B" or above. No transfer credit shall be accepted that was earned more than seven years prior to completion of the degree.

Graduate human relations credits may be applied toward fulfilling program requirements on the Master of Science and Specialist degrees in accordance with departmental approved policy.

When transferring credit to a Specialist degree program, a minimum of 30 of the last 45 credits must be taken at this institution.

After the student's program of study has been accepted for the Master's or Specialist degree, no additional transfer credits will be accepted unless the student has received prior approval via the petition process.

CORRESPONDENCE COURSES. Graduate correspondence courses are not offered by St. Cloud State University. Graduate credit earned through correspondence will not be transferred.

CREDIT EARNED BEFORE ADMISSION. Only 9 quarter hours of graduate credit earned at St. Cloud State University prior to formal acceptance by the department to a graduate program, or the credits completed in the first quarter of registration (whichever is greater) will be permitted to apply toward completion of a Master's or Specialist degree. (Credits earned the first and second summer term are considered as one quarter of graduate work.) In unusual circumstances, credit earned in excess of these figures may be considered for approval by the Graduate Dean by the petition procedure.

FIELD TRIPS. No more than 9 credits earned through field trips may be counted toward completion of a Master's degree. If field trips are registered as Independent Study 600, no more than 4 credits will be applicable to a degree program.

GRADUATE ONLY COURSE WORK. Students pursuing a Master's degree must earn a minimum of 15 **graduate only** credits in their major field of concentration.

TIME LIMIT. All credits (including transfer credits) used in meeting requirements for the Master's degree must be earned within 7 years prior to the awarding of the degree.

All credits used in meeting the requirements for the Specialist degree must be completed within a 5-year period.

RESIDENCE REQUIREMENT. Candidates for the Master's or Specialist degree must earn a minimum of 30 quarter hours in on-campus classes (day and night combined). Graduate courses offered at resident centers established by the University are considered on-campus credit.

Individual departments may establish residence policies requiring a period of full-time study. Each student should consult with the major department to determine specific departmental requirements.

MARKS. The following marks are used in reporting the achievement of graduate students at this institution: **A** (excellent), **B** (good), **C** (acceptable), and **D** and **E** (unsatisfactory or failure). **S** (satisfactory) and **U** (unsatisfactory) are used for certain specialized courses in which a more precise mark is not deemed appropriate. Other non-credit marks which are recorded on official transcripts include: **I** (incomplete), **V** (audit), **W** (withdrawn), and **X** (in progress).

When the student has completed all of the requirements for the Master's thesis, creative work or the Specialist degree field study, the adviser will submit a mark of "**S**" (satisfactory).

When a student who is otherwise doing satisfactory work in a course is unable, for reasons beyond control, to complete all course requirements during the term, a grade of "**I**" (incomplete) will be recorded. Such incompletes must be removed by the student within one quarter, except that an incomplete given in spring quarter must be removed by the end of the following fall quarter. If it is not removed within the time limit, the "**I**" (incomplete) is changed to "**E**".

If the student has not met all of the requirements of the Master's thesis or the Specialist degree field study by the end of the quarter or term in which it was registered, the research will be reported as "**X**" (in progress). The Master's thesis must be completed within the 7-year time limit set for the completion of the Master's degree. The field study must be completed within the 5-year time limitation set for the Specialist degree.

Graduate students, accepted as candidates for the Master's or Specialist degree, whose records show less than a "**B**" average at the completion of the approved program of courses may be permitted to register for a maximum of 8 additional quarter hour credits to be earned in courses approved by the petition procedure. If, after the completion of these 8 additional credits, the average is still less than a "**B**", the student will not be allowed to take additional graduate level work for the purpose of raising the average mark to qualify for the Master's or Specialist degree.

STANDARD OF SCHOLARSHIP. Candidates for the Master's degree must maintain a "B" average in both the major field and the total program. Candidates for the Specialist degree in Information Media must maintain a "B" or higher average in both the major field and the total program. Candidates for the Specialist degree in Educational Administration must earn a 3.25 grade point average over the course work taken in the Specialist degree program. Courses in which a mark of "D" or "E" was earned will not be accepted for graduate credit; however, the honor point deficiency created by such marks must be made up by marks of "A" in other courses. If a course is repeated, both marks are used in determining the total scholarship average.

The marks for all courses taken at the graduate level at this University are included when the scholarship average is calculated.

Students may not apply for program approval before a "B" average has been achieved in both the major and in all graduate work taken at this institution.

Students who have less than a "B" average in the major and/or the total program will not be permitted to take the final oral or written comprehensive examinations.

Marks earned in courses accepted in transfer are not included in the calculation of the scholarship average.

Further registration may be refused on the basis of unsatisfactory scholarship.

DROP POLICY. A student may change registration for course work prior to the start of classes. These withdrawals will not be recorded on the student's record.

To determine the last date on which students may withdraw with a mark of "W", the student should check the appropriate regular or summer class schedule.

COURSE NUMBERING SYSTEM. Courses numbered from 500-699 may be used to satisfy the requirements of graduate degrees. Many courses carry double numbers, e.g. 450-550. These courses are open to advanced undergraduate and to graduate students. To receive graduate credit, the student must register for the 500 number. Courses open only to graduate students are numbered 600-699.

AUDITORS. Auditors may enroll for courses by securing the permission of the instructor of the course and the Dean, School of Graduate and Continuing Studies. Auditors pay the regular fees.

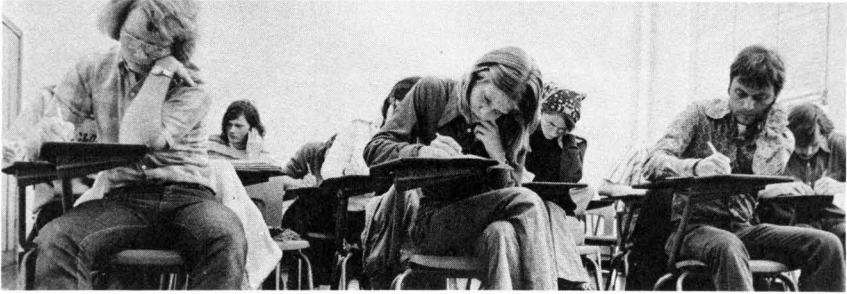
Auditors are not permitted to take the course examinations nor will they be given credit for the courses audited.

GENERAL STUDIES CORE. Some Master of Science degree programs require 9 credits in General Studies. All General Studies courses must be selected from disciplines other than the undergraduate major or minor, the graduate major and professional education.

A. A minimum of 6 credits must be taken in the following General Studies Core:

BIOL	602	Modern Biological Concepts, 3 Cr.
BEOA	607	Business for General Education, 3 Cr.
CHEM	601	(PHYS 601) Major Developments in Physical Science, 3 Cr.
ED	628	School and the Social Order, 3 Cr.
ENGL	696	Literary Heritage, 3 Cr.
IND	601	Technology and the Individual, 3 Cr.
IM	604	Information Media in Society, 3 Cr.
MUS	623	Music in Western Civilization, 3 Cr.
PHIL	542	History of American Philosophical Thought, 4 Cr.
PSY	621	Psychology in Human Affairs, 3 Cr.
SSCI	630	Problems in the Social Science, 3 Cr.

B. If the student elects to take the additional 3 credits in an area outside the General Studies Core, the course must be selected from disciplines other than the undergraduate major or minor, the graduate major, and professional education.



PROFESSIONAL EDUCATION CORE (Secondary Majors)

The basic intent of the Professional Education Core is to include one course from each of three broad professional education areas: educational foundations, curriculum, and instruction.

Courses presently approved for each of these areas include:

Educational Foundations

- SEED 549 Student, Teacher and the Law, 3 Cr.
- ED 604 Organizational Development and the Teacher, 3 Cr.
- ED 609 Comparative Education, 3 Cr.
- ED 616 Philosophy of Education, 3 Cr.
- ED 628 School and the Social Order, 3 Cr.
- SEED 629 The Adolescent and the School, 3 Cr.
- ED 630 History of American Education, 3 Cr.
- ED 659 Problems in American Education, 3 Cr.
- SEED 666 Senior High School Seminar, 3 Cr.

Curriculum

- ED 603 Curriculum Construction, 3 Cr.
- ED 613 Practicum in Curriculum Construction and Development, 3 Cr.
- SEED 661 Secondary School Curriculum, 3 Cr.
- SEED 665 Junior High School Seminar, 3 Cr.

Instruction

- SEED 675 Improvement of Instruction, 3 Cr.
- SEED 676 Teaching Strategies for Practitioners, 3 Cr.
- SEED 607 Modern Trends in Secondary Education, 3 Cr.
- SEED 635 Junior High School Theories and Practices, 3 Cr.
- SEED 636 Senior High School Theories and Practices, 3 Cr.

Other courses may be approved for Professional Education with the **prior** approval of the Secondary Education Adviser and the Graduate Dean.

SUMMARY OF REQUIREMENTS FOR THE MASTER'S DEGREE

Procedure	Under Direction of	To be Completed
Application for Admission to Graduate Study. Student submits application form, matriculation fee, transcripts, and entrance test scores to	Graduate Studies Office Department Chairperson	One quarter prior to first registration.
Appointment of adviser by		Upon acceptance into graduate study.

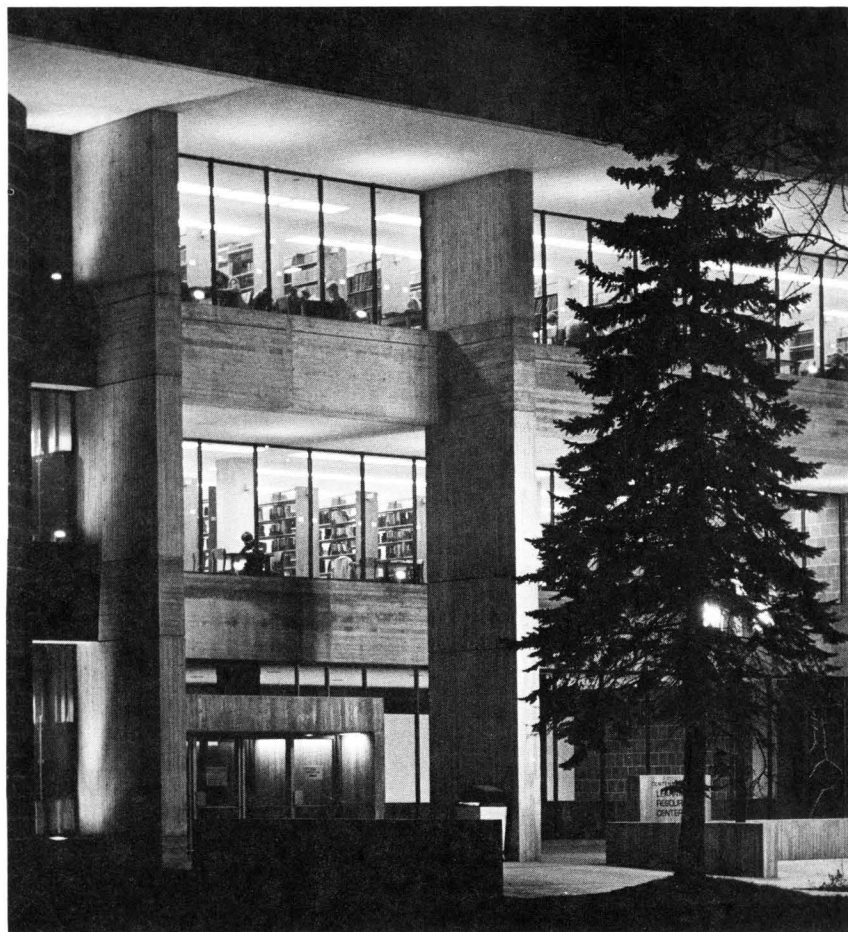
SUMMARY OF REQUIREMENTS FOR THE MASTER'S DEGREE

Procedure	Under Direction of	To be Completed
Registration with approval of	Adviser	Prior to each registration.
Program Approval. Student requests approved program cards from	Graduate Studies Office	Upon satisfactory completion of 0-24 credits at St. Cloud State University.
Develop program in consultation with	Adviser	As part of Program Approval procedure.
Notification of program approval by Graduate Studies Office upon receipt of a program developed in consultation with and approved by the	Adviser	When the program is given final approval by the Graduate Studies Office.
Thesis (Plan A only) or field study conference. Student develops thesis or field study outline and requests preliminary conference through	Graduate Studies Office	At any time after the student has been fully admitted to Graduate School.
Completion of Master's thesis or a field study under the direction of	Adviser	After approval of thesis or field study plan at the preliminary research conference.
Application for Graduation. Student submits application forms to the	Graduate Studies Office	At the beginning of the last quarter.
Complete language requirements if applicable, by submitting appropriate evidence to the	Adviser	Prior to taking the final exam.
Submit thesis or field study to	Graduate Studies Office	Not later than two weeks before the final oral exam.
Final oral examination (Plan A; Plan B, starred papers; creative work or field study.) Make applications with	Graduate Studies Office	Not later than three weeks before graduation.
Submit thesis, field study or Plan B starred papers for binding. Student submits thesis, field study or starred papers at	Graduate Studies Office	Prior to graduation.
Final written comprehensive examination (Plan B). Make application with the	Adviser	At the beginning of the final quarter.
Commencement exercises. Information will be distributed to all applicants each quarter by the	Vice-President for Academic Affairs	For participation in quarterly graduation exercises.



The Fifth Year Program in Teacher Education is intended to provide a systematic basis for study beyond the baccalaureate degree for teachers who do not plan to qualify for a Master's degree. Work included in the Fifth Year Program is selected to strengthen the student primarily in the area taught. A person who has less than an undergraduate minor may not choose that field for a fifth year major. As nearly as possible, a student's Fifth Year Program will be planned to provide an integrated five-year program of preparation for teaching. The Fifth Year Program is available in nearly all teaching fields.

THE FIFTH YEAR PROGRAM IN TEACHER EDUCATION



34 / FIFTH YEAR PROGRAM IN TEACHER EDUCATION

ADMISSION. Students seeking admission to the Fifth Year Program must complete the application form and submit it to the Graduate Studies Office. They must also make arrangements to have two official copies of the undergraduate transcript sent from the college or university where the work was completed to the Graduate Studies Office. All transfer work must be substantiated by two copies of official transcripts sent from the college or university where the work was taken.

An applicant will be granted admission to the Fifth Year Program if a baccalaureate degree is held in teacher education from a college or university accredited by the National Council for Accreditation of Teacher Education, or the appropriate regional accrediting agency, or from an institution recognized by the state university of the state in which the college or university is located.

If the applicant holds a baccalaureate degree from an unaccredited institution, admission to the Fifth Year Program may take place upon the submission of evidence that a valid teaching license is held in the state where the applicant teaches; and upon successful completion of 15 quarter hours of creditable work at this university.

Upon formal admission to the program, the student will be assigned an adviser. The adviser will assist in planning a program that has clear relevance to professional goals of the student.

PLANNING THE FIFTH YEAR PROGRAM. Before completion of 16 quarter hours of course work on the Fifth Year Program, the student, with council from the adviser, must outline the courses to be completed to meet the Fifth Year Program requirements. The necessary forms may be obtained from the Graduate Studies Office or the student's adviser. The program forms must be prepared in triplicate. After the adviser has endorsed each of the three copies, the student will send them to the Graduate Studies Office for processing and distribution. One copy will be placed in the applicant's file in the Graduate Studies Office; one copy will be returned to the adviser; and the third copy will be sent to the applicant. Any subsequent changes in the applicant's Fifth Year Program must have the prior approval of the student's adviser and the Dean, School of Graduate and Continuing Studies via the petition process.

REQUIREMENTS FOR THE FIFTH YEAR PROGRAM

In order to complete the Fifth Year Program, the candidate must have met the following requirements:

1. The student must have earned a minimum of 45 quarter hours of creditable work: in secondary school programs, 15 of these credits must have been taken in courses open only to graduate students; in elementary school programs, 15 of these credits must have been taken at the graduate level.
 - a. The student must have earned a minimum of 33 quarter hours in the major and related areas.
 - b. The student must have earned a minimum of 9 quarter hours in Professional Education.
 - c. The student must have taken ED 614, Interpretation of Research, 3 Cr. or ED 615, Introduction to Research, 3 Cr.
2. At the beginning of the term or quarter when the student plans completion of the required course work, an Application for Graduation must be filed with the Dean, School of Graduate Studies. In addition, a Certificate of Readiness for Graduation must be filed in the student's behalf by the adviser.

CREDITS APPLICABLE. Of the 45 credits required to complete the program, a minimum of 15 credits must be earned in residence at St. Cloud State University.

A combined total of **30** extension, transfer, T.V. and tour credits with marks of "**C**" or better may be accepted on the Fifth Year Program; however, not more than **15** credits will be accepted in transfer.

- A. Graduate and advanced undergraduate credits earned at other accredited colleges and universities after the awarding of the Bachelor's degree (maximum, 15 credits).
- B. Extension from St. Cloud State University (maximum, 15-30 credits).
- C. Tours and T.V. (maximum, 9 credits).

COURSE LOAD. The maximum load for Fifth Year Program students is 16 credit hours per quarter.

COURSE NUMBERING SYSTEM. Courses numbered in the 300, 400, 500, and 600 series are creditable in the Fifth Year Program. Courses carrying numbers in the 100's and 200's may not be included in this program.

FEES. Students enrolled in the Fifth Year Program will pay undergraduate fees when they enroll in undergraduate (300- and 400-numbered) courses and graduate fees when they enroll in 500- or 600-numbered courses.

MARKS. The academic achievement of students is recorded by the following system of marks: **A** (excellent), **B** (good), **C** (average), **D** (not acceptable), and **E** (failing). The mark "**X**" is given during the early quarter or quarters of a course which must be taken in a series of more than one quarter or sessions before any credit is earned. "**S**" means satisfactory performance in courses for which no more precise mark is generally available. "**U**" means unsatisfactory. Courses not completed during the regularly scheduled period will be recorded as "**I**" (incomplete). Such incompletes must be removed by students within the next quarter in order to receive credit for the course. For auditing, the mark recorded will be "**V**".

STANDARD OF SCHOLARSHIP. Candidates for the Fifth Year Program must maintain a grade point average of at least "2.25" in the major and in the total program.

Courses in which a mark of "**D**" or "**E**" was earned will not be credited toward completion of the Fifth Year Program.

A Fifth Year student may repeat one time a course which was failed or in which a "**D**" was received. When a course is repeated, both the old and the new marks will appear on the student's record. Both marks earned will be used in computing the grade point average.

Only courses taken at St. Cloud State University are used in computing the grade point average.

TIME LIMIT. All credits used in completing the Fifth Year Program must be earned within 10 years of the completion of the program.

COMPLETION OF THE FIFTH YEAR PROGRAM. The satisfactory completion of an approved Fifth Year Program in Teacher Education is verified by an appropriate statement on the transcript.





ALL-UNIVERSITY COURSES



CREDIT BY ARRANGEMENT

In special situations, it is possible for students to register for courses which are not included in the quarterly class schedule. With the approval of the instructor, adviser, department chairperson, and the Graduate Dean, the student may register for course work using the "Credit by Arrangement" procedure. Arrangements for completing requirements for these courses are developed in consultation with the instructor assigned.

It is also possible for students to apply 300 or 400 level courses to a graduate program by registering for an all-university course number (Name of Department or Program) 501.

1. To be eligible to register for a 501 Credit by Arrangement, the student must have filed and received formal approval of the program forms or the student must have received Graduate Dean approval by formal action on a petition prior to registration for the course.
2. A maximum of 9 credits earned under the 501 course number may be applied to a Master's degree program.
3. This procedure is open only to students admitted to a graduate degree program.

EDUCATIONAL TOURS

(Name of Department or Program) **510 Educational Tours.** Tours taken under supervision of the University. Exact nature of course will be defined by the department or program involved, subject to approval of the administration. 1-8 Cr.

EDUCATIONAL TELEVISION

(Name of Department or Program) **588 (Special title for each offering).** Television courses offered under supervision of the University. Exact nature of course is defined by the department or program offering it, subject to approval of the administration. 2-4 Cr.

EXPERIMENTAL COURSES

Departments may offer graduate courses on an experimental basis. Proposals for these courses must contain a syllabus with a title and description for the student's record and be approved through the curricular process as established by the Faculty Association and the Administration on October 29, 1976.

Double-numbered courses are assigned numbers by the department from those available at the 400-500 level. "Graduate only" courses are assigned numbers from the block set aside for this purpose.

(Name of Department or Program) **690-694. Selected Topics in (Name of Department or Program):** (Select special title for each offering). 1-4 Cr.

INDEPENDENT STUDY

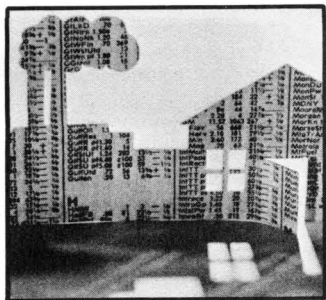
600. Special Problems. Independent study for advanced students wishing to work out a special problem in the major area of concentration. A maximum of four credits will be permitted on a graduate degree program. 1-4 Cr.

WORKSHOPS

(Name of Department or Program) **595 and 695 (Special title for each offering).** Area limited and specific subjects selected before workshop is announced.

The following indicates the limit of workshop credits which are acceptable towards completion of a graduate program:

Master of Arts/Science	Specialist Degree
Plan A — 6 workshop credits	6 workshop credits
Plan B — 9 workshop credits	
Plan C — 15 workshop credits	Sixth Year Program
	9 workshop credits
Fifth Year Program	
15 workshop credits	



A major objective of College of Business graduate programs is to assist students in the development of their professional competencies. To accomplish this task, the MBA and MS programs have been specifically designed to provide both integrated and broad based curriculums. Accomplishment of these goals represents a firm commitment on the part of the faculty and staff of the College of Business to quality graduate programs.

COLLEGE OF BUSINESS

James G. Marmas, Dean

Wayne G. Little, Associate Dean
and Coordinator, MBA Program

L. Marilyn Stinson, Coordinator,
MS Program



MASTER OF BUSINESS ADMINISTRATION (MBA)

Objectives. The MBA degree is designed for those students who desire an integrated and broad program.

The goal of the MBA program is to prepare graduates who have attained:

- A. A comprehension of policy formulation and implementation.
- B. An awareness of environmental forces impinging upon the firm.
- C. A comprehension of the use of quantitative data and analytical techniques as they pertain to business administration.
- D. A working knowledge of the functional areas in business.
- E. The capability to communicate effectively, both orally and in writing.

Admission Policy. The applicant for admission to the Master of Business Administration program must meet the following requirements:

1. A baccalaureate degree from an accredited college or university.
2. An acceptable score on the Graduate Management Admission Test (GMAT).
3. Evidence of undergraduate scholarship.
4. Demonstration of aptitude for successful graduate business study.

Admission is competitive and selection is based on an evaluation of the total factors.

Information about the GMAT can be obtained at the Graduate Studies Office.

The candidate for the Master of Business Administration degree must satisfy the requirements for all Master's degree programs as set forth by the School of Graduate and Continuing Studies.

Applicants who have successfully met admission requirements may enroll in the MBA program as full-time day students or on a part-time basis in evening school.

A maximum of eight 500 level graduate credits taken as a special student may be accepted by the MBA Committee as applying to the degree.

PHASE I — MBA

MBA applicants accepted into the program must have completed the equivalent of the following before starting Phase II Graduate courses:

MBA 242. Quantitative Analysis for Business. Selected topics from the quantitative methods area with major emphasis on applications in business. (For Graduate Students Only.) 4 Cr. F.

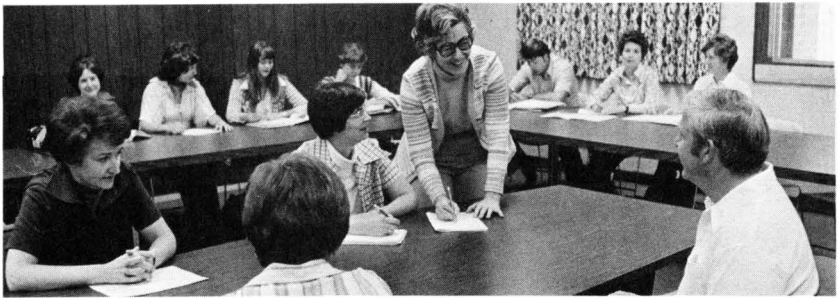
QMIS 250. Data Processing for Business. Role of the computer in information processing; components of a computerized business information center; manipulating, storing, and transmitting computerized information; tools for analysis and planning computer programs; introduction to procedure-oriented languages; and programming projects. 4 Cr. F, W, S, SUM.

MBA 285. Financial Control. External and internal financial reporting systems and their role in planning, control, and evaluation of management action. (For Graduate Students Only.) 4 Cr. F.

MKGB 320. Introduction to Marketing. Analysis, planning and control of marketing functions viewed as a total operating system. 4 Cr. F, W, S, SUM.

MGMF 363. Production Management. Transformation of inputs (material-labor-management-capital) into outputs (goods and services) in manufacturing organizations; management, design, analysis, and control of production systems. 4 Cr. F, W, S, SUM.

MBA 369. Management of Organizations. Analysis of integrated organizational relationship concepts as they relate to organization change and as these relationship theories are applied. (For Graduate Students Only.) 4 Cr. S.



MGMF 371. Managerial Finance. Financial analysis and methods involved for financing various enterprises. 4 Cr. F, W, S, SUM.

ECON 377. Business Economics. Relevance of economic analysis to business decision-making. Demand, cost, capital and profit analysis and the theory of the firm. 4 Cr. W, S, DEMAND.

QMIS 441. Operations Research I. Deterministic models such as assignment problems, transportation problems, problems of traveling sales representatives, linear programming, dynamic programming and inventory models. Prereq.: MKGB 242. 4 Cr. W.

Courses used to satisfy Phase I requirements may not be used to reduce the course requirements under Phase II. An average of "B" or above is required for course work taken in Phase I.

PHASE II — MBA

1. The following 40 quarter credits must be completed by all MBA students.

MBA 629. Marketing Plans and Decision Making. Analysis and planning for decision making in marketing; development of consumer oriented policy in the areas of product, price, logistics, and promotion. 4 Cr. S.

MBA 632. Decision-Making Techniques. Theory of business decision making application of analytical tools to business problems. 4 Cr. F.

MBA 634. Legal and Social Foundations of Business. Case study of business as it is affected by law and social pressures and needs. 4 Cr. F.

MBA 663. Production and Operations Management. Case studies of companies from selected industries that emphasize the direction of operating systems comprising people, material, facilities and information that create goods and/or services. 4 Cr. W.

MBA 670. Corporate Strategies. Analyses, case studies and outside readings in contemporary management problems. (This course must be taken in the last quarter of the MBA Program.) 4 Cr. S.

MBA 671. Financial Management Policy. Problems confronting corporate financial management in analyzing financial requirements. Prereq.: ECON 677 or permission of instructor. 4 Cr. F.

MBA 673. Management of Human Resources. Analysis of principles applicable to problems arising out of individual and group employment relations; theories of selecting, developing, motivating, and accounting for human resources. 4 Cr. W.

ECON 677. Business Economics. Economic analysis as an aid in business management and control. 4 Cr. W.

MBA 683. Managerial Accounting. Development of cost functions, cost-volume-profit relationships, performance measurement and evaluation and the allocation of scarce resources as an aid to the internal decision making process. 4 Cr. W, SUM.

MBA 684. Corporate Financial Reporting. Accounting systems and their role in the valuation of assets, the determination of income, and the measurement of equities with concentration on the interpretation of published accounting statement. 4 Cr. F.

2. In addition to the required courses outlined above, the candidate must elect with the adviser's approval 8 graduate quarter credits. The candidate **may** use these electives to develop a concentration in one or more of the following areas:

- | | | |
|---------------|--------------|--|
| 1. Accounting | 3. Finance | 5. Quantitative Methods &
Information Systems |
| 2. Management | 4. Marketing | 6. Economics |

The MBA program will require graduate students to complete a minimum of 48 quarter credits.

Scheduling Plan

The following course sequence is recommended:

Phase I *		Phase II *	
Fall	MBA 285 MBA 242 ECON 377	Fall	MBA 632 MBA 684 MBA 634 MBA 671
Winter	MGMF 371 QMIS 441 QMIS 250	Winter	MBA 683 ECON 677 MBA 663 MBA 673
Spring	MGMF 363 MBA 369 MKGB 320	Spring	MBA 629 Elective MBA 670 Elective Comprehensive Exams

Candidates should make every effort to complete Phase II in the order suggested. In no case shall a student enroll in any 600 level course unless prerequisites have been met.

*** Students enrolled as full-time students during the day may complete the MBA program in a shorter period of time than indicated above.**

ACCOUNTING (ACCT)

Chairperson: Mohamed Heakal

Graduate Faculty: Heakal, R. Carlson, D. Lu, Schweiger, Sundby, Zimmer

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

581. Advanced Accounting. Theory and practice of accounting for business combinations; parents and subsidiary accounting for consolidated financial statements. Consent of department chairperson. 4 Cr. F, W, S, SUM.

585. Advanced Income Tax. Federal income taxation of partnerships, corporations, trusts, and estates; Federal estate and gift taxation with emphasis placed on tax planning and tax research. Prereq.: 385. 4 Cr. F, W, S, SUM.

586. Auditing Theory. Nature of the audit function; nature of the audit evidence; audit standards and procedures; professional ethics; audit reports. Consent of department chairperson. 4 Cr. F, S, SUM.

587. Auditing Problems and Cases. Application of the auditing standards and techniques in the verification of financial statements and preparation of audit reports. Prereq.: 586. 4 Cr. SUM.

588. Accounting Systems. System planning, design, and applications; emphasis is placed on the interaction of computers and accounting in the development of management information systems. 4 Cr. W.

596. Accounting for Non-Profit Organizations. Nature, usefulness and limitations of accounting information as a tool for program planning and control in non-profit organizations. 4 Cr. S.

COURSES FOR GRADUATE STUDENTS ONLY

605. Business Seminar — Accounting. Selected topics related to accounting theory and practice. Consent of department chairperson. 4 Cr. DEMAND.

680. Special Research. A research seminar for MBA students. 1-4 Cr. DEMAND.

681. Income Determination Theory. The evolution of accounting thought as it relates to income determination, i.e. the balance sheet, the service, the value, and the information theory approaches. 4 Cr. DEMAND.

682. Cost Accounting Theory. Cost accounting concepts and techniques with emphasis on the goals of the firm and the possible aid in achieving these goals through cost control, cost analysis, budgets, and forecasting. 4 Cr. DEMAND.

MASTER OF SCIENCE IN BUSINESS EDUCATION AND OFFICE ADMINISTRATION (BEOA)

Chairperson: L. Marilyn Stinson

Graduate Faculty: Stinson, Lane, Madsen, Olson, Reha

An applicant for admission to the Master of Science in Business Education must meet the following requirements:

1. A baccalaureate degree from an accredited college or university.
2. Hold a Minnesota Vocational Teacher Certificate in Business Education or have completed an undergraduate teacher education program from an accredited teacher preparation institution.
3. An acceptable score on the Graduate Record Examination and/or acceptable undergraduate scholarship.

In some cases the applicant may be required to complete additional undergraduate work even though a major or minor may have been completed.

Students pursuing a Master's degree must earn a minimum of 15 credits (graduate only) in their major field of concentration.

Plan A, 45 Cr.; Plan B, 48 Cr.; Plan C, 54 Cr.

- I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3-6 Cr.; Plan C, 3 Cr.
ED 615 Introduction to Research, 3 Cr. (or equivalent course)
BEOA 699 Master's Thesis, 6-9 Cr. (Plan A only)
- II. Major: Min., Plan A, 18 Cr.; Plans B and C, 24 Cr.
Credits to be selected with approval of major adviser.
- III. Professional Education: Min., Plans A and B, 9 Cr.; Plan C, 6 Cr.
Credits to be selected with approval of professional education adviser.
- IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.; Plan C, 6 Cr.
V. Educational Applications: Min., 15 Cr. (Plan C only)
Credits to be selected with approval of major adviser.

**COURSES FOR ADVANCED UNDERGRADUATE
AND GRADUATE STUDENTS**

505. Vocational Education. History, purpose, organization, philosophy of vocational education. 3 Cr. F, W, S, SUM.

506. Methods for Vocational Programs. Instructional methods, materials. 3 Cr. W.

507. Adult Education Programs. Planning, administering, supervising, evaluating adult programs. Selecting, training adult education instructors. 3 Cr. SUM.

508. Coordination Techniques. Guidance, selection, placing students in training stations; job adjustments; developing training programs. 3 Cr. S, SUM.



509. Organization and Administration of Vocational Programs. Principles, practices; local, state, federal regulations; reporting and evaluation; club programs; curriculum; affiliations. 3 Cr. F.

511. Advanced Topics in Records Management. Problems in creation, use, maintenance, storage, and disposition of records. Emphasis on records management as an administrative service which includes the management of forms, reports, correspondence and microfilming. Prereq.: 310 or consent of instructor. 4 Cr. W.

512. Office Environmental Relationships. Work and social relationships in the office; communications, needs and interpersonal attitudes; employer-employee relationships; survey of research. 4 Cr. S.

513. Office Management. Problems in planning and directing functions of business or professional offices, executive duties and responsibilities of office manager and private secretary, supervision of employees. 4 Cr. F.

514. Office Automation. Selection, acquisition, application, operation of electronic data processing systems. 4 Cr. SUM, ALT.

COURSES FOR GRADUATE STUDENTS ONLY

601. Foundations in Business Education. Principles, philosophy, and curriculum development in business education. 3 Cr. SUM, ALT.

602. Improvement of Instruction in Secretarial Subjects. Instructional materials, methods and procedures, standards of achievement, and other classroom problems. 3 Cr. SUM, ALT.

603. Improvement of Instruction in Accounting. Objectives, courses of study, materials, teaching techniques and innovations for teaching bookkeeping and accounting. 3 Cr. SUM, ALT.

604. Improvement of Instruction in The Basic Business Subjects. Objectives, courses of study, materials, teaching techniques, evaluation, curriculum, related classroom problems. 3 Cr. SUM, ALT.

605. Seminar: _____. Discussion and evaluation of readings, current research, and teaching problems in business education. 1-3 Cr. May be repeated with different topic. Max. of 9 Cr. DEMAND.

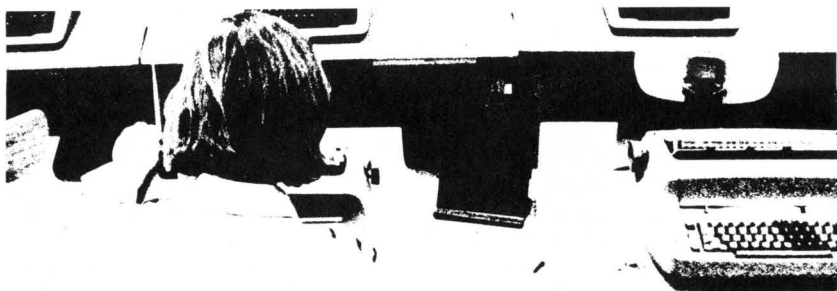
606. Analysis of Research in Business Education. Analysis and application of formal and informal research affecting business teachers. Prereq.: ED 615. 3 Cr. SUM, ALT.

607. Business for General Education. An introduction to consumer law, casualty and life insurance, investments and annuities. Federal income tax, estate planning and wills. Not open to business majors or minors. 3 Cr. F, SUM.

608. Administration and Supervision of Business Education. Problems of teacher, department head, or supervisor beyond those involved in classroom teaching. Equipment and layout, budget making, publicity, curriculums, selection of textbooks, employment, rating, and related problems. 3 Cr. SUM.

616. Consumer Education. An examination of factors which impact on the consumer. A consideration of consumed options which creatively influence the direction of these factors. 4 Cr. SUM, ALT.

699. Master's Thesis. 3-9 Cr. F, W, S, SUM.



MANAGEMENT AND FINANCE (MGMF)

Chairperson: LaVerne Cox

Graduate Faculty: Cox, Burnes, Moody, Pabst, Rajender, Riley, Skalbeck, M. Smith, Wentworth, Williams

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

560. Problems in Personnel Administration. Analysis of selected personnel problems: wage and salary surveys and administration, job evaluation, merit rating; profit sharing; and incentives; selected issues and problems of manpower utilization. 4 Cr. F.

561. Collective Bargaining. Analysis of bargaining processes; legislative and administrative requirements applicable to unions, managements and employees; development and evaluation of collective bargaining agreements. 4 Cr. W.

563. Production and Inventory Control. Management control practices including production planning relative to engineering; production control including routing, scheduling and dispatching; manpower requirements; the interaction of decision-making processes. 4 Cr. F.

564. Purchasing and Materials Management. Principles, procedures, and methods for providing materials and services within the broad concept of complete management of the flows of materials. 4 Cr. W, S.

565. Motion and Time Study. Techniques of methods design and analysis (process charts, operations analysis, and micromotion and memotion studies); work measurement (stop watch time study, predetermined time study methods); work sampling. 4 Cr. W, S.

567. Organization Theory. Analysis of relationships fostered by the industrialized productive setting leading to an integration of individual, group, and organization conclusions and data. 4 Cr. F, W, S, SUM.

571. Corporate Financial Policies. Examination and analysis of financial concepts relative to: corporate financial decision making; adjustments to changing conditions; market structure and corporate capital instruments; capital market movements and financial decisions. 4 Cr. F.

572. Financial Institutions. Examination and analysis of various financial institutions and their role in the field of finance: commercial banks; savings and investment institutions; personal finance companies; investment intermediaries. 4 Cr. W.

574. Security Analysis. Classification and analysis of securities, markets, industries; investment policies; management of portfolios of institutional investors. 4 Cr. S.

575. Life and Health Insurance. Examination and analysis of: individual life and health contracts; group life; pension plans; estate planning; annuities and equity funding. 4 Cr. F.

576. Property and Liability Insurance. Examination and analysis of: insurable property and liability risk; contract analysis; insurance law; rates and reserves; types of property and liability insurances; optimum insurance programs. 4 Cr. S.

577. Strategy and Organization of Public Administration. This course treats problems in bureaucratic organizations which arise from the political system and a non-profit orientation. The focus of the course is on strategy formulation and decision-making in the non-business sector. 4 Cr. DEMAND.

578. Advanced Real Estate. Various ownership aspects of real estate and occupancy with emphasis on: deeds, contract for purchase; trust (intestate and testate); succession laws; taxation; homestead and special problems. 4 Cr. S.

COURSES FOR GRADUATE STUDENTS ONLY

605. Business Seminar. Selected topics related to (1) Management; (2) Finance; or (3) Insurance & Real Estate. 4 Cr. DEMAND.

665. Readings in Management. Special readings in the subject area. 4 Cr. DEMAND.

672. Readings in Finance. Special readings in the subject area. 4 Cr. DEMAND.

675. Readings in Insurance and Real Estate. Special readings in the subject area. 4 Cr. DEMAND.

MARKETING AND GENERAL BUSINESS (MKGB)

Chairperson: Winston Stahlecker

Graduate Faculty: Stahlecker, Benson, Calhoun, Hanafy, Highsmith, J. Johnson, Schneider, Schofield

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

520. Retailing Management. Organization for retailing and functional activities involved; problems of inventory methods, credit and collections, personnel, location, layout, receiving, and delivery. 4 Cr. F.

523. Advertising Management. Analysis of advertising policies and practices in campaign planning, media selection, client-agency relationships, research and testing. Consent of department chairperson. 4 Cr. F, S.

524. Sales Management. Managerial aspects of sales promotion, problems involved in investigations of markets, planning sales effort, management of sales personnel, and control of sales operations. Consent of department chairperson. 4 Cr. W.

525. Marketing Research. Research process as an aid to decision making in marketing management; research methodology, presentation of marketing research results, evaluation of the effectiveness of marketing research. 4 Cr. F, S, SUM.

526. Marketing Systems. An introduction to the system concept in the analysis of marketing activities; system theory and its application to marketing with emphasis on the explanation of varying approaches to marketing systems, such as ecological, institutional, and social physics; development of marketing systems. 4 Cr. W.

527. International Marketing. Stresses the importance of international marketing to the American economy and analyzes United States international marketing with emphasis on the problems and practices of managing international marketing activities; analysis of characteristics, structure, and competitive factors of international markets. 4 Cr. S.

529. Marketing Management. Integration of marketing with other business functions; marketing management and decision making; planning marketing programs, product, channels of distribution, pricing, selling and promotion policies. 4 Cr. F, W, S, SUM.

537. Business Law. Real and personal property, trusts, mortgages, bankruptcy, wills and estates, and secured transactions. 4 Cr. S.

COURSES FOR GRADUATE STUDENTS ONLY

605. Business Seminar — Marketing. Selected topics related to marketing theory practice. Consent of instructor required. 4 Cr. DEMAND.

626. Readings in Marketing. Special readings in the subject area. Consent of department chairperson. 1-4 Cr. DEMAND.

633. Business Case Analysis. Independent research culminating in written and/or oral presentation. 1-4 Cr. DEMAND.

QUANTITATIVE METHODS AND INFORMATION SYSTEMS (QMIS)

Chairperson: Ming-te Lu

Graduate Faculty: M. Lu, Heath, D. Krueger

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

540. Business Statistics III. Review of statistical inference, analysis of variance with two or more variables of classification, multiple regression or correlation, analysis of covariance and non-parametric methods. 4 Cr. W.

545. Advanced Programming Projects I. Planning, coding, testing and documenting computer programs for selected business applications using a scientific oriented programming language. 2 Cr. S.

546. Advanced Programming Projects II. Planning, coding, testing and documenting computer programs for selected business applications using a business oriented programming language. 2 Cr. S.

550. Administration and Control of Management Information Systems. Organizational structure of a management information system; information systems management; personnel selection, training, motivation and evaluation; acquisition, analysis, administration and control of hardware and software; managerial control of MIS; computer's impact on administration and control of MIS. Prereq.: MKGB 351. 4 Cr. S.

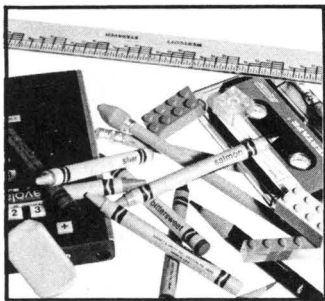
551. Computer Simulation for Business. Rationale for computer simulation, techniques for random number generation, generation of stochastic variates for simulation, simulation of inventory systems, simulation of queuing systems, simulation of large-scale systems, simulation languages and the verification of simulation results. 4 Cr. W.

552. Advanced Topics in Management Information Systems. Recent developments in concepts, theory, practices in the analysis and design of management information systems. Prereq.: 351. 4 Cr. W.

554. Business Decision Theory. Principles used in decision making, the assumptions behind utility and application of utility, decision making under uncertainty, Bayes strategies and their applications in business. 4 Cr. S.

555. Business Research. Fundamentals of research methodology, including planning, organizing, and executing a research project; sampling techniques; basic concepts and techniques in the design of experiments; interpretation of data; art and strategy of presenting findings. Prereq.: 540. 4 Cr. S.

556. Linear Programming. Formulation of linear programming problems, simplex methods, dual simplex, post-optimality analysis and parametric linear programming. Introduction to integer linear programming, cutting plane algorithm, branch and bound algorithms and their applications. 4 Cr. S.



Among the goals of College of Education faculty, staff, and administration is a commitment to provide high-quality graduate programs of study. These programs are offered in an effort to meet both broad-based community interests and needs as well as the specific, professional preparation goals of students. The concept of life-long learning for continuing personal and professional development is valued, and serves as a fundamental base from which graduate programs are developed and offered.

Following are descriptions of post-graduate and graduate programs of study, by unit or department, currently offered in the College of Education.

COLLEGE OF EDUCATION

Kenneth A. Ames, Dean

Kenneth Kelsey, Acting Associate Dean



GENERAL EDUCATION COURSES (ED) COURSE DESCRIPTIONS

Most of the education courses that are listed under departments in the College of Education in this Bulletin are predominantly the responsibility of the department under which they have been listed. However, a number of courses are appropriate in the various departments. These courses are designated as "general education" courses and have the "ED" prefix. Dr. Lowell Mortrude, chairperson of the Secondary Education Department, is responsible for coordinating these course offerings.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

517. Developmental Reading in Junior and Senior High School. Nature of high school reading program, development of reading techniques and skills, development of vocabulary, and reading ability in content fields. 3 Cr. F, W.

535. Current Trends in Children's Literature. Examine children's books in terms of the development of cognitive and affective dimensions in reading comprehension. Relates the literature program in the curriculum to the aims of reading instruction, particularly in collaterally strengthening functional and recreational reading habits, not an alternative to IM 481 or 639. 4 Cr. DEMAND.

575. Nonverbal Communication and Education. The role of nonverbal communication in human interaction. Includes analysis of environmental factors, physical appearance, body language, touching behavior, and paralanguage. 3 Cr. DEMAND.

582. School Discipline. Exploring behavior in the classroom environment. Helping teachers to develop school environments which promote effective functioning. 3 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

601. Selected Topics in Education: _____. Course designed for intensive study of a special topic in Education. Topic will be announced in the class schedule. 1-4 Cr. Max. of 9 Cr. DEMAND.

602. Evaluation of the School Program. Historical and recent developments in evaluation of school programs. Research studies of significant approaches to school evaluation and related problems and issues. 3 Cr. W ALT, SUM.

603. Curriculum Construction. The basic study of alternative techniques and approaches to curriculum construction and implementation at all instructional levels. 3 Cr. F ALT, SUM.

604. Organizational Development and the Teacher. Introductory guide to planned actions for facilitating human responsiveness and adaptability in school organizations. 3 Cr. W.

605. Current Instructional Research. A review and appraisal of research study findings in all instructional areas. Educational implications of the research. 3 Cr. DEMAND.

609. Comparative Education. Foundations, practices, and problems of European, Asiatic, and American school systems. 3 Cr. W ALT, SUM.

613. Practicum in Curriculum Construction and Development. Actual work with a school system to (1) survey the needs of the community, (2) study the present curriculum in the school, and (3) suggest changes. 3 Cr. S, SUM, F ALT.

614. Interpretation of Research. Documentation and bibliography; kinds of research and research methods; use and interpretation of basic statistical tools and procedures. 3 Cr. F, W, S, SUM.

615. Introduction to Research. Evaluating research procedures and interpreting findings. Defining and delimiting a problem, efficient gatherings and proper documentations of data, organization and presentation of findings in acceptable form. 3 Cr. F, W, S, SUM.

616. Philosophy of Education. Historical aspects of education theory; beliefs, arguments, and assumptions underlying current educational thought and practice. Prereq.: One year of teaching experience. 3 Cr. DEMAND.

619. Administration and Supervision of the Reading Program. Implementation and improvement of reading programs from pre-reading through corrective procedures in high school. 3 Cr. SUM.

628. The School and the Social Order. Importance of education in the social structure, effects of a culture on education, the interrelationships of education and the economic, social and political systems; comparative education. 3 Cr. W, SUM.

630. History of American Education. The development of education in the United States from the Colonial period to the present. 3 Cr. F.

635. Research in Children's Literature. Survey of research in children's literature for students working on starred papers or theses **only**. Consent of instructor. 3 Cr. DEMAND.

659. Problems in American Education. Issues arising in our American educational situation; organizing principle of education in a democracy; the school and the state; education and social reconstruction; public schools and religious education; academic freedom; teaching controversial issues. 3 Cr. F, SUM.

678. Supervision of Student Teachers. Student teaching in professional curriculum; procedures for guiding students in planning, teaching, and evaluating learning activities. Prereq.: Two years successful teaching experience. (Enrollment restricted to present and past cooperating teachers and those in a position to supervise student teachers.) 3 Cr. F, W, S.

EARLY CHILDHOOD AND FAMILY STUDIES (ECFS)

Director: Pamm Mattick

MASTER OF SCIENCE: Early Childhood and Family Studies

Two Master of Science degrees, Early Childhood and Family Studies: Early Education; and, Early Childhood and Family Studies: Administration, are offered within this program.

Early Childhood and Family Studies: Early Education, is a degree that is primarily for those persons who would like to gain advanced knowledge and skills about curriculum, methods and materials, and teaching/learning styles specifically pertaining to young children. Both Plan A and Plan B options are available to students who seek this degree.

Early Childhood and Family Studies: Administration, is a degree that has been designed for persons with experience in working with young children and who would like to assume administrative or director roles in early childhood programs. Both Plan A and Plan B options are available to students who seek this degree.

Applicants for these degrees must meet the requirements for admission to the Graduate School at St. Cloud State University. It is anticipated that persons may come with a variety of background training and experience. It is desirable, but not required, that students have completed an undergraduate degree in a related major area.

The ECFS program is designed with the intent to individualize instruction as much as possible to allow for differences in students' backgrounds, interests and abilities. The students will be expected to demonstrate their understandings and skills in numerous field contacts. Nearly all coursework must be taken as concurrent blocks of lecture and field experiences.

A program leading to recommendation for licensure as a nursery school teacher (pre-kindergarten) is also available based on either previous undergraduate work or as work to be taken at the graduate level. Students interested in licensure at the graduate level should send their transcripts to Dr. Pamm Mattick, Early Childhood and Family Studies, College of Education, St. Cloud State University, St. Cloud, MN 56301, for review. Students who wish to pursue licensure, but who do not intend to complete a Master's degree are urged to complete a full application to the graduate school.

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DEGREE REQUIREMENTS

Master of Science in Early Childhood and Family Studies: Administration
Plan A, 45 Cr.; Plan B, 52 Cr.

Master of Science in Early Childhood and Family Studies: Early Education
Plan A, 45 Cr.; Plan B, 52 Cr.

- I. Research: Plan A, 6 Cr.; Plan B, 3 Cr.
 - ED 602 Evaluation of the School Program, 3 Cr.
 - ED 605 Current Instructional Research, 3 Cr.
 - ED 614 Interpretation of Research, 3 Cr.
 - ED 615 Introduction to Research, 3 Cr.
 - PSY 678 Introduction to Graduate Statistics, 3 Cr.
- II. Basic Early Childhood and Family Studies Block: Plan A, 24 Cr.; Plan B, 30 Cr.
 - A. ECFS 521 Development of Young Children, 1-9 Cr.
 - Experiential Core: Min., 6 Cr.
 - ECFS 661 Practicum in Development of Young Children, 1-6 Cr.
 - ECFS 671 Field Experiences or Research: Development of Young Children, 1-6 Cr.
 - ECFS 600 Independent Study, 1-4 Cr.
 - ECFS 699 Thesis (Plan A only), 1-6 Cr.
 - B. ECFS 522 Parent and Family Studies, 1-9 Cr.
 - Experiential Core: Min., 6 Cr.
 - ECFS 662 Practicum in Parent and Family Studies, 1-6 Cr.
 - ECFS 672 Field Experiences or Research: Parent and Family Studies, 1-6 Cr.
 - ECFS 600 Independent Study, 1-4 Cr.
 - ECFS 699 Thesis (Plan A only), 1-6 Cr.

Plan A students will complete 6 credits in only one of the experiential cores listed above. Plan B students will take both experiential units.
- III. Specialization Block (students will take one of the following blocks): 15 Cr.
 - A. ECFS 523 Early Education, 1-9 Cr.
 - Experiential Core
 - ECFS 663 Practicum in Early Education, 1-6 Cr.
 - ECFS 673 Field Experiences or Research: Early Education, 1-6 Cr.
 - ECFS 600 Independent Study, 1-4 Cr.
 - ECFS 699 Thesis (Plan A only), 1-6 Cr.
 - B. ECFS 624 Administration and Facilitation of Early Childhood Programs, 1-9 Cr.
 - Experiential Core
 - ECFS 664 Practicum in Administration and Facilitation of Early Childhood Programs, 1-6 Cr.
 - ECFS 674 Field Experiences or Research: Administration and Facilitation of Early Childhood Programs, 1-6 Cr.
 - ECFS 600 Independent Study, 1-4 Cr.
 - ECFS 699 Thesis (Plan A only), 1-6 Cr.
- IV. Electives: Min., Plan B only, 4 Cr.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

521. Development of Young Children. Development of young children (prenatal development through eight years). Theories of child development, impacts of early experience, developmental assessment and planning. Prereq.: Permission of Program Director. 1-9 Cr. DEMAND.

522. Parent and Family Studies. Model of parent and family education. Ways to involve parents, methods of parent education, family unit studies. Prereq.: Permission of Program Director. 1-9 Cr. DEMAND.



523. Early Education. Teaching techniques, curriculum selection and construction, and evaluation of instructional materials appropriate for early education programs. Prereq.: 521 or 522 and Permission of Program Director. 1-9 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

600. Independent Study. Student will study in depth a special interest area with supervision of faculty member. Prereq.: Permission of Program Director. 1-4 Cr. F, W, S, SUM.

624. Administration and Facilitation of Early Childhood Programs. Administrative philosophy, theory and current practice relating to early childhood programs. (Competency-based.) Prereq.: Permission of Program Director. 1-9 Cr. DEMAND.

661. Practicum in Development of Young Children. Supervised practicum in early childhood programs. Will have experiences of observing and assessing, participating with and planning for children ages 0-8 years. Must be taken at same time as ECFS 521. 1-6 Cr. DEMAND.

662. Practicum in Parent and Family Studies. Supervised practicum working with parents and families participating in early childhood programs. Must be taken at same time as ECFS 522. 1-6 Cr. DEMAND.

663. Practicum in Early Education. Supervised practicum in early childhood programs. Will have experiences in early education settings with children from ages 0-8. Must be taken at same time as ECFS 523. 1-6 Cr. DEMAND.

664. Practicum in Administration and Facilitation of Early Childhood Programs. Supervised practicum in administering and coordinating early childhood programs. Must be taken at same time as ECFS 624. 1-6 Cr. DEMAND.

671. Field Experiences or Research: Development of Young Children. Students must complete a variety of assignments that must be done with young children and their families. Does not require assignment to a specific setting. Must be taken at same time as ECFS 521. Prereq.: Permission of Program Director. 1-6 Cr. DEMAND.

672. Field Experiences or Research: Parent and Family Studies. Opportunity to utilize a variety of settings to advance the students' understanding of parent and family education or involvement. Alternative to practicum for those who can document considerable previous experience in parent and family education. Must be taken at same time as ECFS 522. Prereq.: Permission of Program Director. 1-6 Cr. DEMAND.

673. Field Experiences and Research in Early Education. Opportunity to utilize a variety of early education settings to advance students' understanding of curriculum, methods, and materials used with young children. Alternative to practicum for those students who can document considerable experience with early education programs. Must be taken at same time as ECFS 523. Prereq.: Permission of Program Director. 1-6 Cr. DEMAND.

674. Field Experiences or Research in Administration and Facilitation of Early Childhood Programs. Opportunity to participate in variety of administrative roles in early childhood programs. Alternative to practicum for those students who can document considerable previous experience as administrator or coordinator of early childhood programs. Must be taken at same time as ECFS 624. Prereq.: Permission of Program Director. 1-6 Cr. DEMAND.

699. Master's Thesis. 6 Cr. F, W, S, SUM.

EDUCATIONAL ADMINISTRATION (EDAD)

Chairperson: James W. Anderson

Graduate Faculty: J. Anderson, Farrah, Holden, Holmgren, Renz

The following programs have been approved by the Minnesota State Department of Education for meeting the professional preparation requirements for licensure for the administrative positions where licensure is required by the state.

All candidates for licensure in Minnesota shall have completed three years of successful teaching experience on a license valid for the position in which the experience was obtained. For Elementary principals, the experience must be at the elementary level. For Secondary principals, the experience must be at the secondary level.

THE BROAD AREAS OF COMPETENCY DEVELOPMENT

Educational Administration is a distinct and professional kind of work that has its foundations in a basic and established body of knowledge, skills and understandings. They are the broad areas in which administrators must be competent in order to provide effective leadership.

The Master of Science Degree Program and the Specialist Degree Program are developed on these broad areas:

Business and Finance

Curriculum and Instruction

History and Philosophy of Education

Interpersonal and Group Relations

Legal Aspects of Education

Personnel Administration: Pupil

Personnel Administration: Staff

Psychology of Learning

Research and Evaluation

School — Community Relations

School Facilities

MASTER OF SCIENCE PROGRAMS IN EDUCATIONAL ADMINISTRATION

Programs:

Elementary School Administration

Secondary School Administration

Community Education Administration

Departmental Requirements.

The Advanced Test in Education

Assessment of Field Knowledge (Self Evaluation of Competencies)

The student must fulfill all requirements for the Master of Science Degree Program in School Administration as determined through the departmental assessment procedures.

Program Planning Process. Program planning will be a joint process involving the student and the adviser.

A final program must be submitted for approval upon completion of no less than one-third of the required work and not more than one-half of work completed towards the Master's Degree.

The program completion shall extend a maximum of seven years from the date of the oldest course used for program completion.

Residency Requirement: None. The student must complete a minimum of 35 credits of the planned program in the Master's Degree Program at St. Cloud State University.

Official transcripts showing credit earned from other institutions approved to grant advanced degrees in Educational Administration will be received at the time of admission to the Master's Degree Program. All transfer credits must be accepted at the time that the student submits a program for approval.

The Master's Degree candidate will be expected to complete at least two starred papers in Educational Administration which will: (1) define a problem area; (2) locate and identify material relevant to the problem; (3) interpret and evaluate the material; and (4)



report the findings in a logical and intelligible form. The following guidelines will assist the candidate in preparation of the starred papers:

Standards for the preparation of the starred papers shall be in accordance with the publication of the Graduate Studies Office entitled, **A Manual for the Preparation of Field Studies, Theses, Creative Works and Starred Paper(s).**

Evaluation. Assessment of each candidate's knowledge and performance in the competencies will be continuous as each candidate proceeds through the program.

To successfully complete the content of the program the candidate must give evidence of high level possession of the knowledge and skills stated as role specialization competencies for the administrative program in which the student is a candidate.

Elementary and Secondary School Administration. The applicant for the Master's Degree must complete a minimum of 50 quarter credits. The following program is required:

- A minimum of three years experience as a classroom teacher.
- Successful completion of the Common Core Experiences.
- Completion of the starred papers.
- Completion of the approved program of study.

I. Common Core Experiences: 24-27 Cr. required.

- Legal Aspects of Education
- History and Philosophy of Education
- Interpersonal and Group Relations
- Curriculum: K-12
- Research and Evaluation

Administrative Internship Experience: required of all candidates who have not had administrative experience in the field in which they are seeking licensure.

Psychology of Learning

II. Related Fields: 9-12 Cr. required.

The candidate will select a minimum of nine credits from related fields with the approval of the adviser.

III. Role Specialization Areas: 15-18 Cr. required.

Elementary Education — Required areas:

- Supervision
- Administration of the Elementary School

Elective areas:

- Trends in Elementary Education
- Early Childhood Education
- Instructional Research
- Program Evaluation
- Content and Methods in Elementary Education
- Curriculum Construction

Secondary Education — Required areas:

- Supervision
- Administration of the High School

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Elective areas:

Trends in Secondary Education
Instructional Research
Program Evaluation
Junior High School Education
Secondary Methods
Curriculum Construction

Community Education Administration. The program will be designed within the following framework, taking into account the educational background and experience of each student.

Plan B Only, 48 Cr.

I. Community Organization and Development: 12 Cr.

A. Sociology

SOC 542 Social Movements, 3 Cr.
SOC 556 Complex Organizations, 4 Cr.
SOC 576 American Social Institutions, 4 Cr.
SOC 501 (370) Urban Sociology, 4 Cr.
SOC 501 (379) Research Methods, 4 Cr.

B. Political Science

POL 501 (380) Public Administration, 4 Cr.

C. Psychology: Emphasis on the role of facilitation; the small group process; the action group; the role of the catalyst.

PSY 574 Interpersonal Dynamics, 3 Cr.
PSY 666 Small Group Counseling Process, 3 Cr.
PSY 680 Organizational Psychology, 3 Cr.

D. Speech Communication

SPC 530 Modern Theories of Communication, 4 Cr.
SPC 535 Theories of Small Group Process, 4 Cr.
SPC 540 Advanced Public Speaking, 4 Cr.

II. Community Service Workshops and Seminars: 3-6 Cr.

Specially developed workshops and seminars to meet needs in community education will be offered periodically. Prospective topics include adult education, continuing education, community relations, leisure time and recreation activities, programming community activities, and relationships with social, health, and welfare agencies.

III. Community Education Leadership Role Experiences: 24 Cr.

ED AD 604 School Finance, 3 Cr.
ED AD 608 Public Relations, 3 Cr.
ED AD 613 Practicum in Curriculum Development, 3 Cr.
ED AD 617 Foundations of Community Education, 3 Cr.
ED AD 618 Administration of Community Education, 3 Cr.
ED AD 650 School Law, 3 Cr.
ED AD 674 Educational Administration: Overview, 3 Cr.
ED AD 693 Human Relations for Educational Leaders, 3 Cr.
ED 675 Improvement of Secondary School Instruction, 3 Cr.

IV. Experiential Field Areas: Practicum: 6-9 Cr.

ED AD 607 Practicum in Community Education, 3-9 Cr.

(Selected experiences in community agencies and public schools.)

SPECIALIST DEGREE AND SIXTH YEAR PROGRAM — EDUCATIONAL ADMINISTRATION

Programs.

Elementary School Administration
Secondary School Administration
General School Administration (Superintendency)
Special Education Administration

Departmental Requirements.

Completion of a Master's Degree Program in Educational Administration for School

Administration Programs and a Master's Degree Program in Special Education for the program in Special Education Administration.

The candidate must have completed a minimum of three years teaching experience for the School Administration programs. Candidates for the Specialist Degree in Special Education Administration must have sufficient experience in special education as determined by the Department of Special Education.

In the case where the applicant is not interested in pursuing the Specialist Degree or cannot qualify for the Specialist Degree Program but must meet licensure requirements of the State Department of Education, the applicant may pursue the Sixth Year Program in Educational Administration.

The Advanced Test in Education.

The student must fulfill all requirements for the Specialist Degree or the Sixth Year Program in School Administration as determined through the program planning process and field knowledge assessment. Each program will consist of a minimum of 50 quarter hours. The program in Special Education consists of a minimum of 45 credit hours. It is expected that most programs will exceed the minimum requirements.

The student must give evidence of writing ability (i.e., research papers, education reports pertaining to any phase of Educational Administration).

Program planning will be a joint process involving the student, adviser and the staff of the Department of Educational Administration. Primary responsibility for program planning for the Specialist Degree in the Administration of Special Education will be in the Department of Special Education.

A final program must be submitted for approval upon the completion of no less than one-third of the required work and not more than one-half of the work completed towards the Specialist Degree or the Sixth Year Program.

Program planning and content in the role specialization area will be based in part on a pretest of the candidate's knowledge of the field of educational administration.

The program completion shall extend a minimum of five years from the date of admission to the Specialist Degree Program or the Sixth Year Program.

Residency Requirement: None. The student must complete a minimum of 35 credits of the planned program at St. Cloud State University.

Transcripts showing credit earned from other institutions approved to grant advanced degrees in Educational Administration will be received at the time of admission to the Specialist Degree or Sixth Year Program. All transfer credits must be accepted at the time that the student submits a program for approval.

Evaluation. Assessment of each candidate's knowledge and performance in the competencies will be continuous as each candidate proceeds through the program.

To successfully complete the content of the program the candidate must give evidence of high level possession of the knowledge and skills stated as role specialization competencies for the administrative program in which the student is a candidate.

Final Written Comprehensive Examinations may be required for individual candidates.

The Individualized Program in School Administration. The applicant for the Specialist Degree or the Sixth Year Program must complete a minimum of 50 quarter credits beyond a Master's degree in School Administration. It is expected that most programs will exceed the minimum requirements.

The following program is required:

Sufficient experience, either as a practicing administrator or in a supervised internship, to indicate probable success as a school administrator. The internship is required of all candidates who have not had administrative experience in the field in which they are seeking licensure.

Completion of the common core experiences required in the Master of Science Program.

Completion of an acceptable field study for Specialist degree students and an additional internship experience for Sixth Year Program candidates.

Sixth Year Program candidates are not required to complete a field study, but will be expected to complete additional course work.

Completion of the approved program of study.

I. Role Specialization Block: 24-27 Cr. required.

With the approval of the adviser, the student will select a minimum of the program

content from the areas of administration, supervision, and curriculum and instruction. One-half of the work will be in educational administration.

II. Research: 5-11 Cr.

The Specialist Degree candidate will be expected to do a Field Study: ED AD 641, in Educational Administration or Special Education Administration which will: (1) define a problem area; (2) locate and identify material relevant to the problem; (3) interpret and evaluate the material; and (4) report the findings in a logical and intelligible form. The following guidelines will assist the candidate in preparation of the Field Study:

The student will program five credits for the Field Study.

The Field Study must be initiated before the candidate has completed no more than one-third of the program.

The candidate must include in the planned program the course: ED AD 612, Administrative Field Study Design and Analysis. It is required as a prerequisite to the initiation of the Field Study.

The candidate shall submit the plans for the Field Study for action by a committee appointed by the Graduate School composed of the adviser, one additional member from the major department, and a third representative from a related department.

After receiving committee approval of the Field Study proposal the candidate must register and pay fees for ED AD 641 each quarter until such time as the final oral examination on the Field Study is completed.

Standards for the preparation of the Field Study shall be in accordance with the publication of the Graduate Studies Office entitled, **A Manual for the Preparation of Field Studies, Theses, Creative Works or Starred Paper(s)**.

At the time of the final oral examination, the candidate must submit to the Department of Educational Administration two copies of a summary of the field study, not to exceed two pages in length. The summary should contain a statement of the problem, the procedure of the study, the findings, the conclusions and the recommendations.

Field Study Registration.

Initial and Continuous Registration Procedures for ED AD 641, Field Study: Complete ED AD 612, Field Study Design and Analysis Course. Student cannot enroll in this course prior to approval of program.

At the beginning of the quarter immediately following the quarter in which the student completes ED AD 612, the student will register for ED AD 641, Field Study. The first registration will be for five credits.

In each succeeding quarter following the first registration the student must register continuously until such time as the Field Study is completed. (The student will register for ED AD 641, Field Study Research; the student will be assessed a fee equivalent to two graduate credits for each successive registration until the completion of the Field Study; the continuous registration fees must also be paid for the summer term.)

The student will be exempt from paying the Student Activity fee and the Student Center fee for the continuous Field Study registration.

The initial five credit Field Study registration will be recorded on the student's transcript as ED AD 641, Field Study, 5 Cr. (If at the end of the first registration the Field Study requirements have not been completed, a grade of "X" will be recorded on the transcript.)

The Field Study Research carries no grade and no credit and cannot be applied as graduate credit applicable toward the completion of a student's program. There will be no entry for Field Study Research on the student's transcript. Continuous Field Study registration is a required part of the progress toward degree completion.

The final oral examination on the Field Study will be taken in the quarter in which the student completes the Specialist Program requirements. The continuous registration procedure may be discontinued in the quarter in which the Field Study document is completed, even though this may occur prior to the quarter in which the student completes all other program requirements. This prior approval of Field Study completion must be obtained from the department chairperson.

To be completed if not included on the M.S. program:
 Interpretation of Research (also required of Sixth Year Program candidates) OR
 Introduction to Research AND
 Introduction to Graduate Statistics
 Research in Special Education (for Specialist in Special Education only)

III. Special Study Area: 9-12 Cr.

With the approval of the adviser, the student will select a minimum of nine credits from the areas of: psychology, special education, information media and/or human relations.

IV. Related Fields: 9-12 Cr.

The candidate will select a minimum of nine credits from areas related to the field of professional education with the approval of the adviser.

The Individualized Program in Special Education. The applicant for the Specialist Degree must complete a minimum of 45 quarter credits beyond a Master's Degree in Special Education.

The following program is required:

Sufficient experience in Special Education as determined by the Department of Special Education.

Completion of an acceptable field study (see Research requirements for School Administration candidates).

Completion of the approved program of study.

I. Administration, Curriculum, and Instruction: Min., 18 Cr.

Prescribed:

ED AD 604 School Finance, 3 Cr.

ED AD 650 School Law, 3 Cr.

Electives: 12 Cr. Min.

Selected from areas of administration, supervision, curriculum and instruction, and individualized study (consent of adviser).

II. Foundations, Psychology, Special Education: 9-15 Cr.

Course work selected from areas of educational foundations, psychology, and special education (consent of adviser). Students are expected to develop competence in two fields of special education in addition to the area emphasized in the Master's Degree program. Areas available are: educable mentally retarded, trainable mentally retarded, learning disabled, orthopedically handicapped, gifted, and behavior problems.

III. Related Fields: Min., 9 Cr.

Selected from areas outside of the field of educational administration or special education (consent of adviser).

ASSESSMENT OF ROLE SPECIALIZATION COMPETENCIES

The staff of the Department of Educational Administration will assess the level of the possession of knowledge and skills for each candidate on a continuous basis as each candidate progresses through a planned and approved program. The methods used in this evaluation will be used where appropriate and as follows:

Practicum Performance:

Educational Administration staff and school personnel appraisal of performance in specific competency areas.

Course Work Evaluation:

Instructor's evaluation of the candidate's knowledge and skill in specific competency areas.

Action Research Starred Papers and Surveys:

This technique will provide an evaluation of the candidate's ability to: (1) investigate a given problem; (2) provide an in-depth analysis of the problem; and (3) write a detailed research or survey report.

Case Studies:

Candidates will be involved in administrative case studies where appropriate to given areas of competency. Evaluation will be based on the logic of solution as provided by the candidate.

Seminar Direction:

Administrative candidates will be expected to direct seminars when such activity is appropriate to a learning area. Evaluation will be based on the preparation and the performance in the conduct of such seminars.

Simulation Experiences:

Administration candidates will be evaluated on the basis of their logic as well as their effective and active participation in the simulated experiences setting.

Competency Self-Evaluation and Follow-up Conference:

Each candidate will evaluate his/her own level of knowledge and skill in the various competency areas. The instrument administered will contain the competencies designated and to be learned in the role specialization areas. The instrument will be structured on a scaled basis for each item. Upon the completion of the self-evaluation the candidate will submit the completed instrument to the chairperson of the department for staff analysis. After staff analysis a conference will be arranged with the candidate for a discussion of the self-evaluation and staff reaction. This will constitute an initial pre-program evaluation of the candidate's level of knowledge and skill in the competency role specialization areas. It may lead to the addition of program courses and/or other activities designed to raise the level of the knowledge and skill of the candidate in the role specialization areas.

COURSES FOR GRADUATE STUDENTS ONLY

601. Foundations of Educational Administration. Emphasis on human behavior in its relationship to the theory and practice of administrative behavior. Content would be models as drawn from the related discipline fields. 3 Cr. DEMAND.

602. School Business Management I. Organization and work of the school business office; budgeting; accounting, reporting, and auditing; insurance; central office records; legal services. 3 Cr. DEMAND.

603. School Business Management II. Supply and equipment administration; plant maintenance and operation; food services; pupil transportation; support personnel administration; health and safety program for school facilities. Prereq.: 602. 3 Cr. DEMAND.

604. School Finance. Problems of school finance; business management; local, state and federal sources of school income; budgeting; accounting, and the relationship of school finance to the effectiveness of the instructional program. 3 Cr. DEMAND.

606. Practicum in School Administration. Administrative experience in cooperation with selected school administrators. Prereq.: Two years teaching experience. 3-9 Cr. (Application must be made at least one quarter in advance.) F, S.

607. Practicum in Community Education. Practical experiences in cooperation with selected community agencies. Emphasis on interrelatedness and implementation of community education concepts and strategies. Prereq.: 617, 618. 3-9 Cr. DEMAND.

608. Public Relations for School Administrators. Techniques; communication structures in the community; working with special interest groups, press, radio, and television; preparing news releases; school publications. 3 Cr. DEMAND.

610. Simulated Experiences in Educational Administration. Actual supervisory and administrative problem situations are dealt with through student participation in representations of the real problems. 3 Cr. DEMAND.

612. Administrative Field Study Design and Analysis. Emphasis: types of field studies; topic selection; problem clarification; design and format; selection of statistical instruments; and computer data analysis. Prereq.: to 641. 3 Cr. DEMAND.

617. Foundations of Community Education. Theory, philosophy, concepts, programs, and evaluation of community education; interrelationships with social service agencies and educational institutions. 3 Cr. DEMAND.

618. Administration of the Community School. Emphasis: conceptual, human and technical skills; budgeting; statutes; roles and role relationships; coordination with community agencies and resources. 3 Cr. DEMAND.

640. School Plant Planning and Management. Plant planning and financing, bond elections, operation and maintenance of school buildings. 3 Cr. DEMAND.

641. Surveys and Field Studies. The theory, techniques, procedures, and results of school surveys and field studies. Written field study report required. Prereq.: ED 612. Arranged. Registration required in the next quarter after completing ED 612. 5 Cr. F, W, S, SUM.

641. Field Study Research. Continuous registration. Required of students who have completed ED 612 and the first ED AD 641, Surveys and Field Studies registration. Required until completion of the field study. No Cr. F, W, S, SUM.

649. Elementary School Administration. Staff responsibilities; inter-staff relationships; elementary school program; pupil accounting; school facilities. Prereq.: One year teaching experience. 3 Cr. DEMAND.

650. School Law. Statutes and judicial decisions affecting public education. Legal authority, powers, and liabilities of school personnel with respect to school finance, curriculum, property, contracts, pensions, tenure, etc. 3 Cr. DEMAND.

674. Educational Administration: Overview. School administration in U.S.; role of federal government in education, state departments of education, school districts, school boards, and superintendents. 3 Cr. DEMAND.

676. Secondary School Principalship. For students preparing for administration of secondary schools. Principles and practices in organization and administration of secondary schools. 3 Cr. DEMAND.

677. Personnel Administration in Education. Theories and principles; personnel policies and procedures; selection, appointment, and orientation; salary policies, evaluation, and professional welfare. 3 Cr. DEMAND.

696. Elementary School Supervision. Organization, purposes, and procedures; study of teaching-learning situations, principal's function in diagnosis and improvement of instruction. Prereq.: One year teaching experience. 3 Cr. DEMAND.

697. Current Problems and Issues in School Administration. Content: a different administrative problem or issue each time offered. Students may register three times, each time for a different topic. (6 Cr. Max.) 2 Cr. DEMAND.

698. Seminar in School Administration (Topical). Problems in organization and administration of schools. Areas of study determined by needs. Open only to experienced teachers and administrators. May be repeated. 1-4 Cr. Max. of 9 Cr. DEMAND.

ELEMENTARY EDUCATION (ELED)

Chairperson: Russell H. Schmidt

Graduate Faculty: R. Schmidt, F. Anderson, Bavery, Char, Karakas, G. Mortrude, Park, Purdom, Rouch

MASTER OF SCIENCE — Elementary Education

In order to gain admittance to the graduate program with Elementary Education as the major, a student must have a Bachelor's degree in the teacher education program from an accredited institution. Two years of teaching experience at the elementary school level is regarded as desirable background for admission to this program. The prospective candidates must meet all of the standard entrance requirements for graduate studies at this University.

Before a student is admitted to the MS program he/she must satisfactorily complete ELED 601, Introduction to Graduate Studies in Elementary Education. ELED 601 must be taken during the first or second quarter of graduate study.

Following completion of ELED 601 and admittance to the MS program, each student files a planned program of studies. The program, planned with and approved by the adviser, must include a minimum of 15 graduate only (600 level) credits in the major field of concentration and must have a minimum of 24 credits remaining to be completed. A maximum of 9 credits taken before admittance to graduate study may be included on the planned program.

60 / ELEMENTARY EDUCATION

Plan A, 45 Cr.; Plan B, 48 Cr.; Plan C, 54 Cr.

I. Research: Min., Plan A, 15 Cr.; Plan B, 6 Cr.; Plan C, 3 Cr.

Prescribed:

- ELED 699 Master's Thesis, 9 Cr. (Plan A only)
 - PSY 678 Introduction to Graduate Statistics, 3 Cr. (Plans A and B only)
 - ED 615 Introduction to Research, 3 Cr. (Plan A only)
- Additional credits are to be selected from the following:
- ED 614 Interpretation of Research, 3 Cr.
 - ED 605 Current Instructional Research, 3 Cr.
 - ELED 658 Reading Research, 3 Cr.

II. Major: Min., Plan A, 18 Cr.; Plan B, 27 Cr.; Plan C, 24 Cr.

Prescribed:

- ELED 601 Seminar: Introduction to Graduate Studies in Elementary Education, 3 Cr.
- ELED 660 Elementary Curriculum, 3 Cr.
- ELED 655 Elementary Education — Contemporary and Future, 3 Cr. (Plan C only)

Other courses in the major: Elect a minimum of 12 Cr. for Plan A, 21 Cr. for Plan B, and 15 Cr. for Plan C. (Consent of adviser.)

III. Professional Education: Min., Plans A and B, 9 Cr.; Plan C, 6 Cr.

Select three courses for Plans A and B from two of the following areas.

Select two courses from the following areas for Plan C.

- A. Philosophical and Historical Foundations
- B. Social Foundations
- C. Psychological Foundations
- D. Administration and Supervision

IV. Electives: Min., Plan A, 3 Cr.; Plans B and C, 6 Cr.

(Consent of adviser.)

V. Educational Applications and Implementation: Min., **Plan C only**, 15 Cr.

(Consent of adviser.)

MASTER OF SCIENCE — Reading Consultant

A graduate student who wishes to become licensed as a reading coordinator, consultant, or supervisor must have completed a Master's degree and three years of successful teaching experience, including one year as a "reading" teacher.

Two options are provided in the Master of Science-Reading Consultant Degree Program. By following Track I the graduate student will be eligible for SLBP licensure. Track II provides for more flexibility in the student's program.

Three Starred Papers or a thesis will be written during the Master's degree program. Courses in which Starred Papers will be written must be determined and marked with an asterisk when the graduate student's program is approved. An oral comprehensive examination will be given during the last quarter of the student's work.

Both Plan A (thesis) and Plan B (Three Starred Papers) are available to students who enroll in this program. A total of 48 credits is required on both Plan A and Plan B.

Students pursuing a Master's degree must earn a minimum of 15 Graduate only credits in their major field of concentration.

An applicant for admission to this program must have met the following requirements:

1. The student must hold or be eligible for a Minnesota Elementary or Secondary School Teacher's License (Certificate).
2. The student must have taken a course in developmental reading at the elementary school level (ELED 312, 412, or equivalent).
3. The student must have taken a course in children's or adolescent literature (ENGL 353, ELED 290, or equivalent).
4. In following Track I, the student must have training in the teaching of mathematics (ELED 458 or equivalent), and SPED 471.

Plan A or B, 48 Cr.

I. Research: Min., Plan A, 9 Cr.; Plan B, 6 Cr.

Prescribed:

- ED 615 Introduction to Research, 3 Cr. (Plan B only)
- PSY 678 Introduction to Graduate Statistics, 3 Cr.
- ELED 699 Master's Thesis, 6 Cr. (Plan A only)

II. Major: Min., Plan A, 21 Cr.; Plan B, 24 Cr.

Prescribed:

- ED 517 Developmental Reading in Junior and Senior High School, 3 Cr.
- ELED 521 Analysis and Correction of Reading Disabilities, 3 Cr.
- SPED 525 Special Learning Disabilities I, 3 Cr. (Track I only)
- ELED 623 Practice in Analysis of Reading Disabilities, 3 Cr.
- ELED 625 Practice in Correction of Reading Disabilities, 3 Cr.
- ED 619 Administration and Supervision of the Reading Program, 3 Cr.
- SPED 601 Current Trends in Special Education, 3 Cr. (Track II only)
- PSY 686 Binet, 3 Cr.
- or
- PSY 687 Wechsler, 3 Cr.
- ELED 658 Reading Research, 3 Cr. (Plan B only)

III. Professional Education: Min., 18 Cr. A student must choose either Track I or Track II.

Track I

- SPED 504 Cultural Diversity and Education, 3 Cr.
- SPED 505 Behavior Problems in the School, 3 Cr.
- SPED 526 Special Learning Disabilities II, 3 Cr. (Prereq.: SPED 525)
- SPED 652 Practicum in Special Learning Disabilities, 3 Cr.
- *SPED 612 Psycholinguistics, 3 Cr.
- *PSY 670 Developmental Psychology, 3 Cr.
- or
- *PSY 572 Psychology of Exceptional Children, 3 Cr.

Track II

- ELED 651 Elementary Language Arts, 3 Cr. or alternative with consent of Adviser.
- Electives (15 Cr., consent of adviser).
 - (a) Maximum of four credits independent study.
 - (b) Minimum of eleven credits in 600 level courses.

*These courses should be taken prior to registration for ELED 623 or any of the practicums.

Regulations for Students Who Seek Licensure as an Elementary or Secondary Reading Teacher

To be recommended for an Elementary or Secondary Reading License the student must: (a) hold or be eligible for a Minnesota State Teaching License (Certificate); (b) have completed successfully two years of teaching experience; (c) complete one course in each of the following areas which may be a part of or beyond the Bachelor's degree requirements (teachers holding secondary school licensure only are not eligible to pursue licensure as an elementary reading teacher):

Remedial Reading License

- ELED 312 or 412 —Developmental Reading I or II
- ED 417-517 —Developmental Reading in the Junior and Senior High School (Secondary only)

62 / ELEMENTARY EDUCATION

ELED 421-521	—Diagnosis and Correction of Reading Difficulties
ELED 623	—Practice in Analysis of Reading Disabilities
ELED 625	—Practice in Correction of Reading Disabilities
PSY 469-569	—Individual Appraisal
or	
PSY 686, 687	—Binet; Wechsler

Developmental Reading License (Secondary only)

ELED 312 or 412	—Developmental Reading I or II
ED 417-517	—Developmental Reading in Junior or Senior High School
ELED 421-521	—Analysis and Corrections of Reading Difficulties
ENGL 353	—Literature of Adolescents

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

521. Analysis and Correction of Reading Disabilities. Causes of reading difficulties, procedures to diagnose and correct them. Prereq.: A course in developmental reading. 3 Cr. F, S.

COURSES FOR GRADUATE STUDENTS ONLY

601. Seminar: Introduction to Graduate Studies in Elementary Education. A student/staff seminar designed to orient the student to the graduate program in elementary education. 3 Cr. F, S, SUM.

623. Practice in Analysis of Reading Disabilities. Clinical experience in administration and interpretation of techniques in diagnosing reading disabilities. Prereq.: ELED 421-521 and departmental approval. 3 Cr. SUM.

625. Practice in Correction of Reading Disabilities. Clinical experience in correction of reading disabilities. Prereq.: ELED 623 and by department approval. 3 Cr. SUM.

648. Seminar in Elementary Education. 1-4 Cr. W ALT, SUM.

651. Elementary Language Arts. Activities and procedures for improving instruction in the language arts. Analysis and evaluation of literature, research findings, and curriculum materials in the language arts. 3 Cr. S ALT, SUM.

652. Elementary Science. Activities and procedures for improving instruction in science instruction. Analysis and evaluation of literature, research findings, and curriculum materials in the science curriculum. 3 Cr. W ALT, SUM.

653. Elementary Social Studies. Activities and procedures for improving instruction in the social studies. Analysis and evaluation of literature, research findings, and curriculum materials in the social studies curriculum. 3 Cr. S ALT, SUM.

654. Elementary Mathematics. Activities and procedures for improving instruction in mathematics instruction. Analysis and evaluation of literature, research findings, and curriculum materials in the mathematics curriculum. 3 Cr. F ALT, SUM.

655. Elementary Education — Contemporary and Future. Problems, conditions, and issues relating to elementary education. Analysis and study of organization, instructional practices, curriculum, and materials. 3 Cr. S ALT, SUM.

656. Diagnostic and Remedial Teaching. Diagnostic and remedial techniques used in teaching, reading, spelling, handwriting, fundamentals of English and arithmetic. 3 Cr. DEMAND.

658. Reading Research. A study of research methods and current research regarding the reading process and reading related areas. 3 Cr. SUM.

660. Elementary Curriculum. Historical development; current issues and trends; sociological and psychological foundations; organization; programs and procedures of curriculum improvement. 3 Cr. W, SUM.

662. Kindergarten, Primary Education. Activities and procedures for teaching and the use of materials in kindergarten and primary programs. 3 Cr. S ALT.

699. Master's Thesis. 6-9 Cr. F, W, S, SUM.



HUMAN RELATIONS (HURL)

Director: Douglas Risberg

The functions of the Human Relations Program are to enable students to fulfill the State Education 521 teacher licensure requirement in human relations which is to understand the contributions and life styles of the various racial, cultural, and economic groups in our society; to recognize and deal with dehumanizing biases, discrimination, and prejudice; to create learning environments which contribute to the self-esteem of all persons and to positive interpersonal relations; and to respect human diversity and personal rights.

Basically the program is to help students develop the necessary knowledge and skills to enable them to live successfully in a pluralistic society in a non-racist, non-sexist way. Courses are offered to enable students wishing to pursue human relations topics in depth.

In addition, graduate courses are offered for students interested in acquiring advanced knowledge and skills in the Human Relations field.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

593. Values and Teaching. A course in which the value clarification theory of Rath, Harmon and Simon will be the major focus. Theory, research and teaching strategies will be presented. 3 Cr. DEMAND.

596. Human Relations and the Teacher Part I. Part I of program to meet State Edu 521 Human Relations teacher licensure requirement. The focus is upon parts bb, cc and dd of the state requirement. 3 Cr. F, W.

597. Human Relations and the Teacher Part II. Part II of the program to meet State Edu 521 Human Relations teacher licensure requirement. The focus will be upon part aa of the State requirement. Prereq.: 596. 3 Cr. W, S.

COURSES FOR GRADUATE STUDENTS ONLY

629. Introduction to the Human Relations Profession. An overview of the background and professional application of Human Relations. 2 Cr. F.

680. Internship in Human Relations. Supervised experiences with selected agency school, organization, etc., that has a primary goal to facilitate the improvement of human relationships between individuals and groups. 9 Cr. DEMAND.

681. A Seminar in Practical Approaches for Providing Human Relations Instruction. This seminar will focus upon various techniques for facilitating human relations education. It will be sub-divided into two main components: 1) facilitating group leadership, techniques in intergroup and interracial communications; and 2) instructional techniques in the study of human relations issues. 4 Cr. W.

682. Application of Theory and Methods in Human Relations. The seminar will examine human relations methodology including an analysis of various teaching theories, teaching strategies, materials and evaluation instruments. Emphasis will be upon developing skills in human relations program facilitation. 4 Cr. F.

SECONDARY EDUCATION (SEED)

Chairperson: Lowell Mortrude

Graduate Faculty: L. Mortrude, Bjorklun, Brewer, Grunerud, P. Johnson, Jones, V. Mork

MASTER OF SCIENCE — Curriculum and Instruction

Track I: Junior High School Education

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution. Candidates must meet all the standard entrance requirements for graduate studies at this university, have an entrance conference with a junior high graduate adviser and complete a Departmental Writing Exercise before filing a Program of Studies; the adviser may recommend a qualifying examination of prerequisite course work depending on the background of the applicant.

Education 614 (Interpretation of Research) or Education 615 (Introduction to Research) must be taken within the first 15 credits of graduate study.

Plan A, 48 Cr.; Plan B, 51 Cr.

- I. Research: Min., Plan A, 9 Cr.; Plan B, 3 Cr.

Prescribed:

ED 615 Introduction to Research, 3 Cr.

or

ED 614 Interpretation of Research, 3 Cr.

ED 699 Master's Thesis, 6-9 Cr. (Plan A only)

- II. Major: Min., Plan A, 30 Cr.; Plan B, 36 Cr.

Prescribed:

SEED 635 Junior High School Theories and Practices, 3 Cr.

SEED 665 Junior High School Seminar, 3 Cr.

Junior High School teaching and learning area, 9 Cr.

Subject matter concentration in junior high school teaching fields: Plan A, 15-18 Cr.; Plan B, 21 Cr. Two academic fields are recommended.

- III. General Studies: Min., Plan A, 9 Cr.; Plan B, 12 Cr.

Prescribed:

PSY 678 Introduction to Graduate Statistics, 3 Cr. (Plan B only).

PSY 670 Developmental Psychology (or equivalent course), 3 Cr.

Additional credits to be selected from the General Studies Core, see page 30.

Track II: Senior High School Education

An applicant for this degree must hold or be eligible for full Minnesota Teacher Licensure. Candidates must meet all the standard entrance requirements for graduate studies at this university and have an entrance conference with the educational adviser. An applicant must complete a Departmental Writing Exercise before filing a Program of Studies. An adviser will be assigned by the Department of Secondary Education. These advisers may recommend a qualifying examination or prerequisite course work depending on the background of the applicant. Candidates may select either Plan A or Plan B.

A minimum of 24 credits must be earned in the major in which enrollment is limited to graduate students. Education 614 (Interpretation of Research) or Education 615 (Introduction to Research) must be taken within the first 15 credits of graduate study.

Plan A, 48 Cr.; Plan B, 51 Cr.

- I. Research: Min., Plan A, 9 Cr.; Plan B, 6 Cr.

Prescribed:

ED 615 Introduction to Research, 3 Cr.

or

ED 614 Interpretation of Research, 3 Cr.

PSY 678 Introduction to Graduate Statistics, 3 Cr. (Plan B only)

SEED 699 Master's Thesis, 6-9 Cr. (Plan A only)

II. Major: Min., Plan A, 33 Cr.; Plan B, 36 Cr.

Prescribed:

- A. SEED 636 Senior High Theories and Practices, 3 Cr.
SEED 629 The Adolescent and the School, 3 Cr.
SEED 666 Senior High School Seminar, 3 Cr.
- B. Senior High School Teaching and Learning Area, 9-15 Cr. In collaboration with their adviser, candidates shall select course work from education, psychology, or subject matter disciplines that is applicable to teaching and learning in the senior high school.
- C. Subject matter concentration in senior high school teaching will be limited to one teaching field, 15-18 hours. These courses will be selected with permission of adviser. Approved teaching fields include: Art Education, Biological Sciences, Business Education, English, Health Education, Industrial Education, Language Arts, Mathematics, Music, Physical Sciences, Physical Education, Social Studies.

III. General Electives: 6-9 Cr. Students will select courses to complement their professional needs and interests with the following exception: Students selecting broad field Language Arts or Social Studies concentrations will utilize these credits to take additional course work in the disciplines included in their subject matter concentration.

MASTER OF SCIENCE — Secondary School Teaching Fields

In all secondary school majors except those where a different amount of undergraduate preparation is prescribed in the departmental description, a graduate student must have completed at least an undergraduate minor in a subject area in order to be eligible to choose it as a major at the graduate level. In some cases, it will be necessary for the applicant to complete some prerequisite undergraduate work even though an undergraduate major or minor may be in the student's proposed graduate major.

The Professional Education component requires students to select at least one course in the theoretical areas of foundations, curriculum, and instruction. Ordinarily the courses recommended in Foundations are: ED 604, ED 609, ED 616, ED 628, ED 659, SEED 549, SEED 629; in Curriculum, ED 603, ED 613, and SEED 661; in Instruction, SEED 607, SEED 635, SEED 636, SEED 675, and SEED 676. Consult with the Chairperson of Secondary Education for advisement and approval.

Programs in secondary school teaching fields are listed under the departmental majors. For details of program requirements, refer to department course listings. Programs are available in art, biology, business education, English, geography, health and physical education, history, industrial education, mathematics, music, physical science (listed under chemistry or physics), social science (listed under interdisciplinary studies).

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

549. The Student, the Teacher, and the Law. Statutes and legal decisions affecting teachers and students in the public schools of the United States. Licensure, contracts, tenure, teacher authority and liability with respect to students, curriculum, school property, and other related topics will be studied. 3 Cr. F, S, SUM.

COURSES FOR GRADUATE STUDENTS ONLY

607. Modern Trends in Secondary Education. Various kinds of new educational materials, programs and equipment; speakers, visitations, and observation. 3 Cr. S, SUM.

629. The Adolescent and the School. Importance of the school cultural milieu on the development of the students. Emphasis on role of school personnel in developing, implementing constructive learning environments. 3 Cr. W, SUM.

635. Junior High School Theories and Practices. Introduction to the field of junior high school education, including a survey of its functions, philosophy and development; study of the current theories and practices in the education of early adolescents. 3 Cr. F, SUM.

636. Senior High School Theories and Practices. Historical overview of the field of senior high school education, including a survey of functions, philosophy, and development; study of current theories and practices in secondary education. 3 Cr. F, SUM.

661. Secondary Curriculum. Historical development; current issues and trends; sociological and psychological foundations, theories of secondary school education; organization; programs and procedures of curriculum improvement stressing role of teacher. 3 Cr. W, SUM.

665. Junior High School Seminar. Problems and issues related to teaching and learning in the modern junior high school; areas of emphasis determined by the needs and interests of the members of the seminar. Prereq.: SEED 635. 3 Cr. S, SUM.

666. Senior High School Seminar. Problems and issues related to effective teaching and learning in the modern senior high school; areas of emphasis determined by needs and interests of the members of the seminar. Prereq.: SEED 636. 3 Cr. S, SUM.

675. Improvement of Secondary School Instruction. Learning principles at adolescent level, curriculum, planning for classroom instruction, managing a classroom, conducting individual and group work, using instructional materials, study and work habits. 3 Cr. W, SUM.

676. Teaching Strategies for Practitioners. Study and development of materials and teaching techniques in meeting the needs of classroom teachers at the post-baccalaureate level. 3 Cr. DEMAND.

699. Master's Thesis. 3-9 Cr. F, W, S, SUM.

SPECIAL EDUCATION (SPED)

Chairperson: Stanley Knox

Graduate Faculty: Knox, Ayers, Gadberry, R. Johnson, J. Lewis, Lovelace, F. Reese, S. Reese, Scribner

MASTER OF SCIENCE — Special Education

The Department of Special Education offers three separate programs which lead to a Master of Science degree. The three programs are Plan A, B, and C. In all three plans the student may obtain an emphasis in educable mentally retarded, trainable mentally retarded or learning disabilities.

A Master's thesis is required in the Plan A program and a final oral examination over the thesis is part of the requirement. Students pursuing the Plan A option must have a minimum of 12 hours in research and 15 GRADUATE ONLY credits in their major field of concentration. A minimum of 45 graduate hours is required in the Plan A program.

Plan B is designed for those students who wish to complete a Master's program in special education by writing three starred papers. The starred papers must be approved by the student's adviser. A final oral examination with three members of the graduate faculty is required. A written comprehensive examination is also required. Students pursuing a Master's degree under Plan B must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration. Minimum number of hours under Plan B is 48 graduate hours.

The Plan C Master of Science program in special education is designed for the professional practitioners whose primary goal is to improve his/her qualifications and performance as a classroom teacher within the structure of a Master's degree program. Minimum number of graduate hours under Plan C is 54 hours. Fifteen hours of extension or workshop credits may be part of the Plan C program. Proposal for contents of the Professional Portfolio will be submitted in SPED 601. Students under the Plan C program must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Candidates for Plan C are required to successfully complete a final oral examination covering the materials developed for inclusion in the Professional Portfolio. The committee will be composed of two members from the department and one member from outside the department selected by the Graduate Dean. Plan C candidates are also required to successfully complete a final written examination covering content area of the major program (II) and Education Applications and Implementation (V).

Contents of Professional Portfolio:

- A. Papers written in courses which are part of the student's graduate program.
APA style is required.
- B. Curriculum programs written to be implemented in student's professional setting.
- C. Media projects (aids in teaching)
 1. filmstrips
 2. slide/sound presentations
 3. video tape
 4. films
 5. series of overhead transparencies
- D. Individual Education Programs (IEP)
- E. Records, logs, lesson plans, and assessment of internships or practicums.

MASTER OF SCIENCE PROGRAM

Plan A, 45 Cr.; Plan B (Starred Papers), 48 Cr.; Plan C (Professional Portfolio), 54 Cr.

- I. Research: Min., Plan A, 12-15 Cr.; Plan B, 6 Cr.; Plan C, 3 Cr.
 - SPED 602 Research in Special Education, 3 Cr.
 - SPED 699 Master's Thesis, 6-9 Cr. (Plan A only)
 - PSY 678 Introduction to Graduate Statistics, 3 Cr.
- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.; Plan C, 24 Cr.
 - SPED 601 Current Trends in Special Education, 3 Cr.
 - SPED 603 Problems in Special Education, 3 Cr.
 - SPED 690-694 Topical Seminars, 6 Cr.
- III. Professional Education, 6 Cr.

Courses from education and psychology selected with adviser.
- IV. Electives: Min., Plan A, 3-12 Cr.; Plan B, 12 Cr.; Plan C, 6 Cr.
- V. Educational Applications and Implementation: Min., Plan C only, 15 Cr.

Specialist Degree — Special Education Administration

In conjunction with the Department of Educational Administration, the Department of Special Education offers a course of study leading to the degree of Educational Specialist. For details of this program, the student is referred to the description of the Specialist Degree in Educational Administration.

The Individualized Program in Special Education.

The applicant for the Specialist degree must complete a minimum of 45 quarter credits beyond a Master's degree in Special Education. This program leads to a recommendation for licensure as a supervisor of special education in Minnesota.

The following program is required:

1. Three years experience in special education.
2. Licensure in one or more areas of special education.
3. Completion of an acceptable field study (see Research requirements for School Administration candidates).
4. Completion of the approved program of study.
- I. Administration, Curriculum, and Instruction: Min., 18 Cr.

Prescribed:

 - ED AD 604 School Finance, 3 Cr.
 - ED AD 650 School Law, 3 Cr.

Electives: 12 Cr. Min.

Selected from areas of administration, supervision, curriculum and instruction and individualized study (consent of adviser).

- II. Foundations, Psychology, Special Education: 9-15 Cr.

Course work selected from areas of educational foundations, psychology, and special education including SPED 610, 613, and 654. Students are expected to develop competence in two fields of special education in addition to the area emphasized in the Master's degree program. Areas available are: educable mentally retarded, trainable mentally retarded, learning disabled, orthopedically handicapped, gifted, and behavior problems.

III. Related Fields: Min., 9 Cr.

Selected from areas outside of the field of educational administration or special education (consent of adviser).

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

504. Cultural Diversity and Education. Problems of cognitive, linguistic, social, and emotional development. Pre-school, elementary and secondary school programs. Role of supportive agencies. 3 Cr. F, W, S, SUM.

505. Behavior Problems in the School. Introduction to the assessment and management of behavior problems in the classroom. Prereq.: 401. 3 Cr. F, W, S, SUM.

506. Orthopedic Handicaps in the School. Characteristics, etiology, treatment, and prognosis of the various types of orthopedic handicaps. Role of the auxiliary services and other professions. 2 Cr. F, S.

507. Education of Children with Learning Disabilities. Introduction to learning disabilities. Survey of approaches to instruction. Laws and regulations governing disability programs. 3 Cr. W.

520. Education of Severely and Profoundly Retarded. Evaluation and planning for the severely and profoundly retarded in public school programs, institutions, and community based residential facilities. Analysis of materials and methods. Prereq.: 421-521. 3 Cr. F, W, S.

521. Education of Moderately Mentally Retarded Children. Evaluation and planning for moderately mentally retarded. Analysis of materials and methods. Observation and participation. Prereq.: 401. 3 Cr. F, W, S, SUM.

522. Education of the Gifted. Identification, characteristics, instructional programs and educational problems. 3 Cr. S, SUM.

523. Methods and Materials in Special Education I. Selection of children and organization of school programs for mentally retarded and orthopedically handicapped. Curriculum adjustment, teaching methodologies. Prereq.: 401. 3 Cr. F, W, S, SUM.

524. Methods and Materials in Special Education II. Analysis of curricular materials for mentally retarded and orthopedically handicapped. Observation and participation. Prereq.: 423-523. 3 Cr. F, W, S, SUM.

525. Special Learning Disabilities I. Techniques of identification and evaluation of children with learning difficulties associated with language, emotional, neurological, and perceptual problems. Prereq.: 401. 3 Cr. W, S, SUM.

526. Special Learning Disabilities II. Instructional methodology and treatment for children with learning disabilities. Prereq.: 425-525. 3 Cr. W, S, SUM.

527. Teaching Basic Skills to Handicapped Learners. Principles of teaching basic skills and their application to the development of skills in handicapped learners diagnostic procedures. Prereq.: 401. 3 Cr. F, W, S, SUM.

528. Learning Problems in the Classroom I. Characteristics and needs of special education students in the regular classroom. Survey of special programs. 3 Cr. DEMAND.

529. Learning Problems in the Classroom II. Curricular adaptations and instructional methods for working with handicapped students in the regular classroom. Survey of materials. Prereq.: 528. 3 Cr. DEMAND.

530. Learning Problems in the Classroom III. Planning and implementation of individual instructional programs designed to meet specific needs of students with learning problems. Prereq.: 529. 3 Cr. DEMAND.

531. Career and Vocational Planning for the Special Needs Student. Initiation and maintenance of vocational education programs for the special needs student. Educational models, job analysis, employer-school relations, laws and regulations. 3 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

601. Current Trends in Special Education. Current trends including methods and materials, assessment procedures, and innovations in service systems. An introductory course for graduate students. 3 Cr. F, SUM.

602. Research in Special Education. Techniques and interpretations of research in

special education. Problem definition, research design, reporting results. 3 Cr. F, W, SUM.

603. Problems in Special Education. Seminar in problems and issues relating to programming for exceptional children in the schools. Content determined according to background and interests of the students. Prereq.: 601. 3 Cr. F, S, SUM.

604. Recent Research in Mental Retardation. Trends, implications for planning educational programs for mentally retarded, emphasis on studies in psychology and education. Prereq.: PSY 473-573. 3 Cr. S.

605. Behavioral Analysis for Handicapped Children. Analysis of symptom development and educational problems in handicapped children according to the principles of learning. Prereq.: Permission of Department. 3 Cr. S.

610. Supervision of Special Education. Methods, staff development, curriculum development, administrative relationship. 3 Cr. W, SUM.

611. Curriculum for Special Education. Problems and changing concepts in planning for handicapped children. Innovative curricular approaches. Prereq.: ED 424-524 or 426-526. 3 Cr. W, SUM.

612. Psycholinguistics. Introduction to psycholinguistics. Symbolic processes involved in communication. Interpretation of data. Prereq.: Permission of Department. 3 Cr. F, W, S.

613. Administration of Special Education. Role of Special Education Administration in school management system. Planning, programming, and evaluating service delivery systems. Local, state and federal resources. 3 Cr. S, SUM.

650. Practicum in Moderately, Severely, and Profoundly Handicapped. Supervised practicum in teaching moderately, severely, and profoundly handicapped children. Prereq.: 520 or 521. 3-8 Cr. F, W, S, SUM.

651. Practicum in Special Education. Supervised experiences in a special education program, vocational program or college programs. Prereq.: Permission of Department. 3-8 Cr. F, W, S, SUM.

652. Practicum in Special Learning Disabilities. Supervised practicum in teaching children with learning disabilities taken concurrently with 525 and 526. May be repeated. 3-6 Cr. W.

654. Practicum in Special Education Administration. Supervised experience in the schools with directors of special education. Prereq.: 613 or concurrent registration. 3 Cr. F, W, S.

655. Assessment of Psycholinguistic Abilities. Theory and structure of instruments measuring psycholinguistic abilities. Techniques of administration and interpretation. Implementation for remediation. Prereq.: Permission of Department. 2 Cr. F.

699. Master's Thesis. 6-9 Cr. F, W, S, SUM.

STUDENT TEACHING (EDT)

Chairperson: Floyd Perry

Graduate Faculty: Perry, Kelsey, Thies

COURSES FOR GRADUATE STUDENTS ONLY

603. Elective Teaching. Supervised laboratory experience in any of the following areas: teaching, guidance, school administration, supervision of instruction. Prereq.: Two years successful teaching experience. 2-4 Cr. F, W, S.

605. Internship. A full year of on-the-job supervised teaching as part of the fifth year or Master's degree available to selected, mature, licensed teachers. 3 Cr. per quarter; Max. 9 Cr. F, W, S.

612. Student Teaching. Supervised secondary and post-secondary teaching for students preparing to teach in grades 7-14. Assignment will be in a public educational institution. Prereq.: PSY 563 and ED 561 or equivalent. 16 Cr. F, W, S.

HEALTH, PHYSICAL EDUCATION AND RECREATION (HPER)

Chairperson: John Kasper

Graduate Faculty: Kasper, Bleick, Buckley, Kelly, Morohoshi, Osendorf, Serdula, Troyer, Waxlax, Whitlock.

MASTER OF SCIENCE — Health and Physical Education

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution, and must have completed an undergraduate minor or equivalent of at least 36 quarter hours of credit in health or physical education. In some cases, the applicant may be required to complete additional undergraduate work even though a major or minor may have been completed.

An applicant may select either the health education track or the physical education track. A minimum of 24 credits must be taken from courses within the selected track areas. Some courses in related fields will also be accepted with the consent of the adviser.

Under Plan B, candidates are required to write a starred paper in conjunction with a graduate health education or physical education course of their own choosing. The paper shall be a detailed study and shall follow the style manual available through the Graduate Studies Office. Further, in addition to the final written comprehensive examination, the candidate will be required to take a final oral examination on this project.

Students pursuing a Master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 45 Cr.; Plan B, 48 Cr.

- I. Research: Min., Plan A, 9 Cr.; Plan B, 3 Cr.

Prescribed:

HLTH or PE 601 Research Methods in Health and Physical Education, 3 Cr.

HLTH or PE 699 Master's Thesis, 6-9 Cr. (Plan A only).

- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.

Selected course work in health and physical education. Consent of adviser.

- III. Professional Education: Min., Plans A or B, 9 Cr.

Consent of Secondary Education Adviser.

- IV. General Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.

Prescribed: PSY 678 Introduction to Graduate Statistics, 3 Cr.

Electives from Related Fields, General Studies Core or courses in the major.

Consent of adviser.

Students who wish to qualify for licensure as a supervisor, consultant, director, or coordinator of school health programs under Minnesota EDU 325 will have to meet the following minimum requirements:

A major in Health Education at the Master's degree level.

A minimum of 15 quarter hours of graduate credit in administration and supervision from the following courses or comparable approved courses in administration and supervision:

HLTH 625 Supervision of School Health Programs, 3Cr.

EDAD 674 Educational Administration, 3 Cr.

EDAD 677 Personnel Administration, 3 Cr.

EDAD 601 Research and Theory in School Administration, 3 Cr.

EDAD 696 Elementary School Supervision, 3 Cr.

A minimum of 6 quarter hours of graduate credit from the following courses:

HLTH 639 Practicum, 3 Cr.

HLTH 515 Health Education Curriculum Development, 4 Cr.

HLTH 598 Elementary School Health Program, 3 Cr.

The candidate must have the required teacher's license for Health Education.

Three years of appropriate successful professional experience in education while holding a license valid for the position in which the experience was obtained.

**COURSES FOR ADVANCED UNDERGRADUATE
AND GRADUATE STUDENTS**

508. Principles and Philosophy of Physical Education and Athletics. Biological, sociological, and psychological interpretations of physical education. Philosophical concepts from ancient Roman and Greek cultures to present. 3 Cr. SUM.

511. Organization and Development of Physical Education in the Elementary School. Principles, problems, and procedures. Open to 4-year elementary graduates. 3 Cr. F, W, SUM.

512. History of Physical Education and Athletics. Role of physical education in the life of primitive and ancient societies to the present. Impact of program in foreign countries on the program of this country. 3 Cr. F, SUM.

515. Organization and Administration of Intramural Sports. Methods and materials of intramural sports program in public schools. Content of program. Methods of organizing competition, regulations governing play, outcomes, and awards. 3 Cr. S, SUM.

535. Theory of Dance. History, principles, theory, and philosophy underlying dance from primitive times to the present. 3 Cr. DEMAND.

540. Camping Administration. Organization and administration of camps; program planning; selection and training of staff; camp site selection and development; health and safety. 3 Cr. DEMAND.

541. Outdoor Education. Development in outdoor education; instructional principles of outing activities and outdoor education program materials and methods. 3 Cr. DEMAND.

550. Secondary Curriculum and Administration of Physical Education. Organization and administration of secondary programs in physical education. 4 Cr. F, S, SUM.

551. Adapted Physical Education. Common disabling conditions of the exceptional child and the organization and administration of the physical education program in order to meet their needs. Prereq.: 348. 3 Cr. DEMAND.

556. The Administration of Interscholastic Athletics. History and objectives of high school athletics; local organization, state and national control over high school athletics; safety and sanitation in athletics. 3 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

601. Research Methods in Health and Physical Education. Selection of research topics, searching literature, test construction, descriptive methods, laboratory research, application of statistical procedures, formal writing, experimental design. 3 Cr. SUM.

607. Principles of Movement. Scientific principles that form the basis for developing a complete concept and understanding of human movement. 3 Cr. DEMAND.

609. Sport and Society. The inter-relationship of sports and athletics with other aspects of culture. Emphasis on the Twentieth Century. Prereq.: 412-512 or consent of instructor. 3 Cr. DEMAND.

610. Comparative Physical Education. Physical education in other parts of the world with emphasis on methods of instruction, objectives and types of activities. Selected countries will be studied in depth. 3 Cr. DEMAND.

613. Supervision of Instruction in Health and Physical Education. Planning; teacher qualifications, conducting conferences with health and physical education teachers. 3 Cr. DEMAND.

620. Seminar in Physiology of Exercise. A discussion and evaluation of current research and conditioning trends in exercise physiology. Prereq.: 349 or 449. 3 Cr. SUM.

631. Seminar in Physical Education. Problems of teachers engaged in teaching or supervising physical education in the public schools. 3 Cr. DEMAND.

633. Readings and Research in Physical Education. 1-4 Cr. DEMAND.

652. Test and Measurements in Physical Education. Critical study of tests and measurements available in physical education; methods of constructing and evaluating new tests and measurements. 3 Cr. SUM.

654. Advanced Theory of Competitive Athletics. Practical problems associated with coaching and training a competitive athlete through high school and college years. No one sport will be stressed. 3 Cr. SUM.



- 660. Administration of Physical Education.** Facilities, equipment, space, time, costs, etc. involved in promotion of a physical education program. 3 Cr. DEMAND.
- 661. Planning Physical Education Facilities.** Principles, terminology, and standards for planning construction, use, and maintenance of facilities. 3 Cr. DEMAND.
- 699. Master's Thesis.** 6-9 Cr. F, W, S, SUM.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

- 515. Health Education Curriculum Development.** Organization and development of a school health education curriculum and consideration of courses of study, K-12; legal basis; distinction between curriculum and course of study. Prereq.: HLTH 210, 215, 301, 315, 481, or consent of instructor. 4 Cr. F, W, SUM.
- 581. Human Sexuality.** Body growth and development, reproduction, and heredity. Role of the home, church, school and community in family life education, dating and courtship, marriage and family living. 4 Cr. F, W, SUM.
- 598. Elementary School Health Program.** Concepts of health, disease, safety, family life, nutrition and consumer information for the elementary school. 3 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

- 601. Research Methods in Health and Physical Education.** Selection of research topics, methods, laboratory research, application of statistical procedures, formal writing, experimental design. 3 Cr. SUM.
- 620. Seminar in Physiology of Exercise.** A discussion and evaluation of current research and conditioning trends in exercise physiology. Prereq.: PE 349 or 449. 3 Cr. SUM.
- 625. Supervision of the School Health Program.** History, legal requirements, budget, scheduling, coordination, public relations, and philosophy as each of these relates to the school health program. 3 Cr. DEMAND.
- 630. Seminar in School Health Education.** Problems confronting teachers engaged in teaching or supervising health education in public schools. 3 Cr. DEMAND.
- 632. Survey of Recent Research in the Field of Health.** Readings and discussion of recent studies and authentic reports in various areas of health interest. 3 Cr. DEMAND.
- 637. Practicum I.** Supervised experience in an off-campus setting peculiar to the student's needs. Prereq.: Consent of instructor. 1 Cr. DEMAND.
- 638. Practicum II.** Supervised experience in an off-campus setting peculiar to the student's needs. Prereq.: Consent of instructor. 1 Cr. DEMAND.
- 639. Practicum III.** Supervised experience in an off-campus setting peculiar to the student's needs. Prereq.: Consent of instructor. 3 Cr. DEMAND.
- 644. Orthopedics, Therapeutics, and Correctives.** An overview of the field of rehabilitation of physical disabilities. Orthopedic screening procedures as an integral part of the school health program. 3 Cr. DEMAND.
- 699. Master's Thesis.** 6-9 Cr. F, W, S, SUM.

LIBRARY AND AUDIOVISUAL EDUCATION (IM)

Chairperson: John Berling

Graduate Faculty: Berling, Fields, Hill, J. Nelson, Rydberg, C. Savage, Schulzetenberg, Smelser

With the current emphasis on all media formats the Department of Library and Audiovisual Education has developed Master of Science and Specialist degree programs in Information Media to support persons in media (print and non-print — library and audiovisual formats) for all levels of responsibility. Encompassed in the Information Media major at the graduate level and minor at the undergraduate level are concepts dealing with print (book) and non-print (audio, projected and non-projected) materials. Majors in this area are expected to attain competency in the theory and practice of identification, evaluation, procurement, preparation, organization, and supervision of information materials; therefore, the student will be required to complete a prescribed core of coursework.

Prerequisite courses are IM 603 or 468 and 275, or acceptable equivalent. Graduate students should note that IM 608, Research Methods, or its equivalent must be taken within the first 15 credits of the Master's degree program in Information Media. Thus, the student must have completed IM 608 or its equivalent or be enrolled in IM 608 before the requirements for filing a program for the Master's degree are met.

SPECIALIST DEGREE (Ed.S.) — Information Media

The Specialist Degree Program is available to: (1) those who have completed a Master's degree with a major in some area of media (library or audiovisual education), (2) those who have completed a minimum of 45 graduate credits in some area of media but who have not completed the Master's degree yet are eligible for entrance into the Master's degree program under present entrance requirements or (3) those who have a Master's degree in another area. Each student's program will be designed to meet the individual's interests and needs.

The specific goals of the Specialist Degree Program are to develop competencies necessary for media supervisor licensure; to develop a background and depth in one or more areas in addition to a more general background which a Master's Degree may offer; to prepare a student for administrative positions in public, academic or school district media programs; to help students meet requirements for advancements in position or salary schedules which may require an advanced degree and to offer an opportunity for in-depth study of a problem through the field study.

With the exception of those students who have completed the Master's degree in Information Media at St. Cloud State University, all students will be required to take the Graduate Record Examination including the Advanced Section in Education. A minimum grade point average on all graduate work is 3.0. References also are required.

Specialist Degree Program: Min., 45 Cr.

- I. Major: Min., 33 Cr. (The student must have a minimum of 60 graduate credits of media.)

IM 683 Seminar in Information Media, 2 Cr.

IM 684 Field Study, 3-9 Cr.

Credits selected with the consent of the adviser.

- II. Electives: Min., 12 Cr.

Selected with the consent of the adviser.

MASTER OF SCIENCE — Information Media

Programs are available for students who hold a baccalaureate degree. Encompassed in the Information Media major are concepts dealing with the print (book) and non-print (audio, projected and non-projected) materials. Majors in this area are expected to attain competency in the theory and practice of identification, evaluation, procurement, preparation, organization, and supervision of information materials; therefore, the student will be required to complete a prescribed core of coursework.

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Program One is open to holders of baccalaureate degrees and is not restricted to applicants engaged in teaching. It should be noted that this degree is not intended to support initial licensure or license endorsement. Plans for pursuing work in this program should be developed in consultation with an adviser.

Program Two is open to holders of a baccalaureate degree who have a current teaching license and who wish to obtain license endorsement and/or the Master's degree in Information Media. Students eligible to pursue this degree program should consult with an adviser.

Program One (Plan B only) Min., 51 Cr.

I. Research: Min., 6 Cr.

IM 608 Research Methods (or equivalent), 3 Cr.

IM 682 Research in Information Media, 2-12 Cr.

II. Major: Min., 36 Cr.

Credits to be selected with adviser.

III. Electives: Min., 9 Cr.

Credits to be selected from Related Fields, General Study courses, Statistics, Interpretation of Research or the major.

Program Two (Plan B only) Min., 51 Cr.

I. Research: Min., 3 Cr.

IM 608 Research Methods (or equivalent course), 3 Cr.

II. Major: Min., 30 Cr.

Credits to be selected with adviser to include licensure requirements.

III. Professional Education: Min., 9 Cr.

Credits to be selected with adviser to meet licensure requirements. Prereq.: undergraduate or graduate curriculum course on level for which the student has teacher licensure in addition to the required 9 credits.

IV. Electives: Min., 9 Cr.

Credits to be selected with adviser from Related Fields, General Studies courses, Introduction to Graduate Statistics, Interpretation of Research or courses in the major.

STUDENTS SEEKING LICENSE ENDORSEMENT

Students with baccalaureate degrees who have teacher licensure or are eligible for teacher licensure may apply for admission to pursue license endorsement as school librarians, audiovisual directors, or media generalists. Students with teacher licensure and the Master's degree may apply for admission to pursue license endorsement as media supervisors. Minnesota licensure endorsements require the following experience in addition to the course requirements:

Audiovisual Director	—two years
Media Generalist	—two years
Media Supervisor	—three years in the area of media while holding licensure valid for the position in which the media experience was obtained.

Those with a degree must enroll in graduate level courses. Applicants planning to work toward any license endorsement should meet with a graduate adviser in the Department of Library and Audiovisual Education to plan the sequence of courses required. Additional information may be obtained from the Chairperson of the Department of Library and Audiovisual Education, St. Cloud State University.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

571. Preparation of Media. Designing, producing, and utilizing projected and non-projected materials for instructional use. Lab. 3 Cr. W, SUM.

573. Photography in Media. Basic photographic processes in education, including still and motion photography, darkroom processes, and the operation of equipment. Lab. 3 Cr. F, SUM.

575. Administration of Media. Basic theory and techniques of administering media programs and service. Prereq. or concurrent enrollment: 275 and 468 or 603. 3 Cr. SUM.

576. Selection and Evaluation of Media. The selection of media materials, including theory, principles, techniques, and basic tools. Prereq. or concurrent enrollment: 275 and 468 or 603. 3 Cr. F, SUM.

577. Reference and Bibliography in Media. Reference and bibliographic works, including theory, practice, tools and bibliographies. Prereq. or concurrent enrollment: 275 and 468 or 603. 3 Cr. W, SUM.

578. Technical Processes in Media. The basic processes for acquiring, cataloging, classifying, and organizing materials. Lab. Prereq. or concurrent enrollment: 275 and 468 or 603. 3 Cr. S, SUM.

582. Audio Systems. Lecture and demonstration of the theory and application of sound reproduction techniques to support system planning, component selection, system expansion, and component purchasing for monophonic and polyphonic systems. Lab. 3 Cr. F.

583. Visual Literacy Approach to Photographic Presentations for Instruction, Documentation, and Communication. Visual literacy approach to preparing color slides, prints, slide presentations, and displays for information, documentation, communications, and instruction. Includes presentation design, materials and format selection, and equipment utilization. Does not include laboratory processing of photographic materials. 3 Cr. W.

COURSES FOR GRADUATE STUDENTS ONLY

603. Introduction of Media. A beginning course in the nature of media in libraries and audiovisual service, the organization and use of materials of all formats and equipment; the opportunities in the field. Lab. 4 Cr. F, SUM.

604. Information Media in Society. The role of media, personnel, and organization in society; a study of materials of library and audiovisual service. (A general course for graduate students; not open to Information Media majors.) 3 Cr. S, SUM ALT.

606. Organization and Supervision of Media. An introductory survey of the various facets of organization and supervision of media resources in library and audiovisual services. 3 Cr. F, S, SUM.

608. Research Methods in Media. Methods of evaluating research procedures and interpreting findings. Defining and limiting a problem, gathering, documenting, organizing, and presenting findings. 3 Cr. W, SUM.

612. Television in Media. The operation and use of television in the instructional program. Lab. 3 Cr. F, SUM.

615. Preparation of Media II. Planning and preparing materials for instructional use; graphics, lettering, and overhead transparencies. Lab. Prereq.: 471 or 571 and 473 or 573 or permission of instructor. 3 Cr. F ALT.

616. Television in Media II. Preparation and production of audio and video-tapes include lighting, staging, writing, and visuals. Lab. Prereq.: 612 or permission of instructor. 3 Cr. W, SUM ALT.

617. Instructional Slide Production in Information Media. Production of instructional slides and slide sequences. Selection, organization, and supervision of slide production personnel, facilities, and materials. Lab. Prereq.: 471-571, 473-573. 3 Cr. F.

618. Motion Picture in Media I. Principles of designing and using motion picture films, the documentary, theoretical, education, experimental and industrial films in education. Lab. 3 Cr. S ALT.

619. Motion Picture in Media II. Planning and producing instructional films, including 8 mm, 16 mm formats, script writing, equipment operation, lighting and selection of suitable messages for this medium. Lab. Prereq.: 618 or permission of instructor. 3 Cr. F ALT.

631. Selection and Evaluation of Media II. Theory, principles, and techniques of evaluating and selecting materials and equipment used for formats of media. Prereq.: 476-576. 3 Cr. F ALT, SUM ALT.

636. Reference and Bibliography in Media II. Theory of patron information needs, study of specialized bibliographic and reference media materials in subject areas. Prereq.: 477-577. 3 Cr. S ALT, SUM ALT.

638. Technical Processes in Information Media II. Continuation of the study of information media materials organization with emphasis on the use of Library of Congress classification schedules and subject headings, administrative considerations in larger operations, and computer-stored bibliographic data. Lab. Prereq.: 478-578. 3 Cr. W ALT, SUM ALT.

639. Reading, Listening and Viewing Guidance. Materials of varying formats (book and non book) used by children and youth in the learning process, with an emphasis on application. Prereq.: 603. 3 Cr. S, SUM.

644. Information Storage and Retrieval. Principles of information storage and retrieval with emphasis on needs of the media center. Analysis of processing systems, manual punch-card and computer application. Lab. 3 Cr. S, SUM.

647. Programmed Instruction. The psychological background of instructional programs; the selection, utilization, and evaluation of existing programs; and individual experience in planning and producing programs. Lab. 3 Cr. S ALT, SUM ALT.

651. Administration of Media II. Application of the principles of administrative patterns, personnel management, public relations, budgeting and facilities to a media program. Prereq.: 475-575 or permission of instructor. 3 Cr. W, SUM ALT.

658. Systems Design and Evaluation of Media. Principles in system design; using and evaluating media systems; practice in designing and using media models in relation to specific needs. Lab. 3 Cr. F, SUM.

660. History of Media. A chronology of events and circumstances in the development of libraries and other information media. 3 Cr. SUM ALT.

662. Recent Trends in Media. Consideration of the latest trends and thinking in the various areas of media handling and use. 3 Cr. S ALT, SUM ALT.

680. Internship in Media. Intern experiences relating to media in all its practical facets. Lab. 2-12 Cr. F, W, S, SUM.

681. Readings in Media. Selected readings of literature of the field and related areas. 3 Cr. F, W, S, SUM.

682. Research in Media. Current experiments in media and closely related fields. 2-12 Cr. F, W, S, SUM.

683. Seminar in Media. Conferences, reports, readings, discussions, problems, and research in a special facet of media (may be repeated). 1-4 Cr. May be repeated. Max. 9 Cr. F, W, S, SUM.

684. Field Study in Media. Research problem(s) developed by the student with permission of the adviser and the department chairperson. 3-9 Cr. F, W, S, SUM.

PSYCHOLOGY (PSY)

Chairperson: Terrance Peterson

Graduate Faculty: T. Peterson, D. Anderson, Boltuck, Craik, Dwyer, Hemmer, J. Knutson, A. Krueger, Kukuk, Lamwers, Lesar, Luker, Mason, Murphy, Nunes, Perkins, Petrangelo, Prochnow, Redding, Rosenthal, Wollin.

MASTER OF SCIENCE — Counseling

(Effective Summer 1978)

The program in Counselor Education is designed to permit the students to select from among several emphases (Community, Rehabilitation, and Secondary School Counseling).

Procedure for Admission to Graduate Programs In Counselor Education

To be considered the applicant must complete the admission procedures as outlined under **Admission to Graduate Study** in the Graduate Bulletin. In addition, the student must complete the following requirements: (Contact the Counselor Education secretary in A253 EB.)

1. Complete a Personal Data form.
2. Complete a battery of psychological instruments. These instruments which are

commonly used by counselors will be used in future courses to assist the student in program selection and to provide the experience of test taking.

3. Successfully complete a preliminary writing skills examination.
4. Following the completion of the previous steps, complete a personal interview process with the Counselor Education faculty. Careful attention will be given to previous work experience, academic background, scholarship, emotional maturity, interpersonal skills, and commitment to the counseling profession. Interviews will be given in May and August. For the specific dates, contact the Counselor Education secretary. If attendance is impractical, the coordinator of Counselor Education may designate an alternate method for the pre-acceptance interview. All applications will be reviewed and recommendations regarding admission to Graduate Studies will be made.
5. The number of credits outlined in the catalog represent **minimum** requirements. The Counselor Education Committee may require additional credit hours.
6. Students must be admitted to graduate studies prior to the completion of nine graduate credits. Any credits taken beyond the nine credits, before admission to Graduate Studies, will **NOT** be counted toward a counseling degree.

OTHER PROGRAM REQUIREMENTS AND INFORMATION

Application Deadlines

Students seeking admission to Graduate Programs in Counseling should be advised of the following application deadlines. Applications for admission to Graduate Studies and all of the above steps (1 through 4) leading to the interview process must be completed prior to:

- May 1 - for summer and fall term entry, or by
- August 10 - for fall term entry **if space in the program is available** after the May interview process.

NOTE:

1. Entry to the counseling program is limited to summer and fall quarters only.
2. It is the sole responsibility of the applicant to be sure that all materials, particularly all letters of recommendation required by Graduate Studies, are processed on time. You will **not** be notified of missing data.

CANDIDACY

Admission to Graduate Studies does not constitute candidacy for a counseling degree. Rather, a student who has been admitted to graduate study is advanced to degree candidacy upon the recommendation of the Counselor Education Committee. Advancement to degree candidacy requires that the candidate must have completed between 12 and 24 credit hours of graduate study at St. Cloud State University with a minimum grade point average of 3.0; have submitted to the Counselor Education Program Coordinator three (3) completed program forms signed by the student and the adviser; demonstrated clearly the aptitude and ability to pursue graduate work, including independent study; exhibited a commitment to counseling as a profession; and demonstrated potential for a successful career in the field selected. Admission to degree candidacy is not an automatic process, but rather the advancement to candidacy is approved by the committee only after careful evaluation of all pertinent factors.

PART-TIME STUDENTS

Following admission to Graduate Studies, **all** part-time students must complete a minimum of 12 graduate credit hours per year in order to maintain candidacy in the counseling program.

TRANSFER CREDIT

At the time of advancement to candidacy, a maximum of 15 graduate credit hours may be transferred toward a Master of Science degree in Counseling.

THE CORE COURSES: Min., 21 Cr.

The program in Counselor Education is designed to permit the student to select from among several emphases. All emphases include a common core of course work fundamental to the professional activities of counselors.

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ALL students must complete the following courses:

- PSY 651 Counseling Theories, 3 Cr.
- PSY 665 Appraisal Techniques, 3 Cr.
- PSY 666 Small Group Counseling Process, 3 Cr.
- PSY 667 Career Development, 3 Cr.
- PSY 668 Counseling Procedures, 3 Cr.
- PSY 669 Supervised Practicum in Counseling (Prereq.: PSY 651, 665, 667, and 668), 6 Cr.

A minimum grade of B is required in PSY 651, 665, 667, and 668.

COMMUNITY COUNSELING EMPHASIS (Formerly General Counseling Emphasis)

Plan A, 67 Cr., Plan B, 70 Cr.

- I. Research: Min., Plan A, 9 Cr.; Plan B, 6 Cr.
 - Plan A: Prescribed
 - PSY 678 Introduction to Graduate Statistics, 3 Cr.
 - PSY 699 Master's Thesis, 6-9 Cr.
 - Plan B: Prescribed
 - PSY 678 Introduction to Graduate Statistics, 3 Cr.
 - Elective in Research (consent of adviser), 3 Cr.
- II. Major: Min., Plan A or B, 45 Cr.
 - A. Prescribed Counseling Core: Min., 21 Cr.
 - B. Prescribed Community Counseling Emphasis: Min., 12 Cr.
 - PSY 530 Seminar: Community Counseling, 3 Cr.
 - PSY 569 Individual Appraisal, 3 Cr.
 - (Choose two of the following three), 6 Cr.
 - PSY 571 Mental Hygiene, 3 Cr.
 - PSY 575 Abnormal Psychology, 3 Cr.
 - PSY 585 Theory of Personality, 3 Cr.
 - C. Prescribed Internship: Min., 12 Cr.
 - PSY 696 Internship in Counseling, 12 Cr.
- III. Electives: Min., Plan A, 13 Cr.; Plan B, 19 Cr.
 - Consent of adviser.

The student must select electives on the basis of his/her specific area of interest in community counseling.

REHABILITATION COUNSELING EMPHASIS

Students with less than three years of full-time experience in vocational rehabilitation will complete the following program:

Plan A, 67 Cr.; Plan B, 70 Cr.

- I. Research: Min., Plan A, 9 Cr.; Plan B, 6 Cr.
 - Plan A: Prescribed
 - PSY 678 Introduction to Graduate Statistics, 3 Cr.
 - PSY 699 Master's Thesis, 6-9 Cr.
 - Plan B: Prescribed
 - PSY 678 Introduction to Graduate Statistics, 3 Cr.
 - Elective in Research (consent of adviser), 3 Cr.
- II. Major: Min., Plan A or B, 51 Cr.
 - A. Prescribed Counseling Core: Min., 21 Cr.
 - B. Prescribed Rehabilitation Counseling Emphasis: Min., 18 Cr.
 - PSY 650 Introduction to Rehabilitation, 3 Cr.
 - PSY 652 Seminar: Medical Factors in Rehabilitation, 4 Cr.
 - PSY 653 Psychological and Sociological Aspects of Disability, 2 Cr.
 - PSY 655 Seminar: Rehabilitation Planning and Management, 3 Cr.
 - PSY 655 Seminar: Vocational Placement Techniques, 3 Cr.
 - PSY 585 Theory of Personality, 3 Cr.
 - C. Prescribed Internship: Min., 12 Cr.
 - PSY 696 Internship in Counseling, 12 Cr.
- III. Electives: Min., Plan A, 7 Cr.; Plan B, 13 Cr.
 - With consent of adviser.



Students with three or more years of full-time experience in vocational rehabilitation settings may substitute some courses with consent of adviser. Adviser's consent will only be given for those courses where the experienced student demonstrates possession of the competencies encompassed in the courses for which substitution is requested.

SECONDARY SCHOOL COUNSELING EMPHASIS

To enroll in the Secondary School Counseling program, a student must hold or be eligible for a teacher's license.

For secondary school counseling licensure in Minnesota, the following are required:

1. Endorsement from the counselor preparing institution. (For endorsement from St. Cloud State University, the student must complete all requirements for the Master's degree and be approved for endorsement by the Counselor Education Committee.)
2. Minnesota Teaching license.
3. One year of successful teaching experience.
4. One year of work experience outside of teaching.

The following program meets the requirements of the Minnesota State Department of Education for licensure as a secondary school counselor:

Plan A, 57 Cr.; Plan B, 60 Cr.

I. Research: Min., Plans A and B, 9 Cr.

Plan A: Prescribed

- PSY 678 Introduction to Graduate Statistics, 3 Cr.
PSY 699 Master's Thesis, 6-9 Cr.

Plan B: Prescribed

- PSY 678 Introduction to Graduate Statistics, 3 Cr.
PSY 679 Seminar: Research Design, 3 Cr.
PSY 689 Seminar: Research Reporting, 3 Cr.

II. Major: Min., Plan A or B, 39 Cr.

- A. Prescribed: Counseling Core: Min., 21 Cr.
B. Prescribed: Secondary School Counseling: Min., 12 Cr.
PSY 564 Guidance Principles, 3 Cr.
PSY 566 Guidance of the Handicapped, 3 Cr.
PSY 571 Mental Hygiene, 3 Cr.

or

- PSY 585 Theory of Personality, 3 Cr.
PSY 670 Developmental Psychology, 3 Cr.

- C. Prescribed Internship: Min., 6 Cr.
PSY 696 Internship, 6 Cr.

III. Electives: Min., Plan A, 9 Cr.; Plan B, 12 Cr.

Consent of adviser.

For Licensure Only — Individuals already possessing the Master's degree may earn endorsement for licensure by meeting all admission, course, and other requirements. Courses from the previous Master's degree will be considered to meet requirements but students must earn a minimum of 24 credits in the St. Cloud State University Counselor Education Program.

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Courses required for licensure include the following:

PSY	564	Guidance Principles,	3 Cr.
PSY	571	Mental Hygiene	
		or	
PSY	585	Theory of Personality,	3 Cr.
PSY	651	Counseling Theories,	3 Cr.
PSY	665	Appraisal Techniques,	3 Cr.
PSY	666	Small Group Counseling Process,	3 Cr.
PSY	667	Career Development,	3 Cr.
PSY	668	Counseling Procedures,	3 Cr.
PSY	669	Supervised Practicum in Counseling,	3-6 Cr.
PSY	678	Introduction to Graduate Statistics,	3 Cr.
PSY	679	Seminar: Research Design,	3 Cr.
PSY	689	Seminar: Research Reporting,	3 Cr.
			<hr/> 33-36 Cr.

The number of credits outlined represent the minimum requirements. The Counselor Education Committee may require additional credit hours.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

530. Seminar._____ (Selected topic in special areas in psychology.) May be repeated. 1-4 Cr. Max. 9 Cr. DEMAND.

564. Guidance Principles. Philosophy of guidance, individual appraisal, counseling services, informational services, placement organization, group guidance activities, staff service and contributions, and program organization and administration. 3 Cr. F, SUM.

566. Guidance for the Handicapped. Special problems. Counseling with children and parents. Psychological, aptitude, achievement tests. 3 Cr. W, S, SUM.

569. Individual Appraisal. Methods of individual appraisal; psychological measurement of individuals; instruments used to appraise intellectual efficiency, aptitude and achievement, sensory capacities and efficiency, sensory-motor coordination, group status, personal history; synthesizing data and report writing. Prereq.: 463 or 665. 3 Cr. F, SUM.

571. Mental Hygiene. Characteristics of wholesome personality, methods and aims of mental hygiene; personal development and techniques of effective adjustments. Prereq.: 262. 3 Cr. F, W, S, SUM.

572. Psychology of Exceptional Children. Clinical observation of children who have special problems of growth and development, physical and mental handicaps; mentally gifted; behavior disorders. Prereq.: SPED 401 for B.S. students; PSY 441 or 443 for B.A. students. 3 Cr. F, S, SUM.

573. Psychology of Mental Retardation. Etiology, characteristic, classification, diagnosis, assessment. Social control. Role of family, school, community agencies. Prereq.: SPED 401 for B.S. students; PSY 441 or 443 for B.A. students. 3 Cr. F, W, S, SUM.

574. Interpersonal Dynamics. Survey of research, experimentation, and theory of relationships between the individual and the group; inter-personal communication, influence, group structure and function, leader-member relations. 3 Cr. F, SUM.

575. Abnormal Psychology. Functional and organic deviations for understanding normal behavior of human personality with greater clarity and precision. 3 Cr. F, W, S, SUM.

576. Introduction to Clinical Psychology. Overview of the clinical approach to assessment of individuals and techniques for behavioral change as used in clinical, educational, and industrial settings. Prereq.: 475-575. 3 Cr. DEMAND.

582. Motivation. Theory and research in animal and human motivation; physiological, social, and personal aspects of motivation; basic, deficit, derived, growth motivation. 3 Cr. DEMAND.

583. History and Schools. Systems, experiments, personalities in the development of modern psychology; comparative study and analysis of systems; contribution of outstanding persons. 3 Cr. DEMAND.

585. Theory of Personality. Basic theoretical concepts, factors of vital relationships within the individual personality, interpersonal relationships, individual and field frames of reference as they relate to mental health. 3 Cr. W.

COURSES FOR GRADUATE STUDENTS ONLY

621. Psychology in Human Affairs. Examination of the broad principles of psychology and their impact on human affairs; nature of man, mind and body, basis of knowledge, basis for conduct; relation between psychological thinking and other modes of inquiry. Not open to students majoring in Counseling or Psychology. 3 Cr. DEMAND.

650. Introduction to Rehabilitation. Orientation to the rehabilitation process including a survey of the history, principles, philosophy and legal aspects of rehabilitation and related fields. 3 Cr. F, SUM.

651. Counseling Theories. Consideration of selected theories of counseling with consideration given to application in various counseling settings. 3 Cr. F, SUM.

652. Seminar: Medical Factors in Rehabilitation. The etiology, prognosis methods of treatment, effects of disabling conditions and implications for the counselor. 1-4 Cr. S.

653. Psychological and Sociological Aspects of Disability. The emotional and psycho-social factors associated with various disabilities. 2 Cr. May be repeated. S.

655. Seminar in Rehabilitation Counseling:_____ Special topics in the field. 1-3 Cr. May be repeated. Max. 9 Cr. W, S.

663. Applied Theories of Learning. Principles of psychology of learning and experimental findings; application to problems encountered in teaching and learning; examination of theories of learning. 3 Cr. F, W, S, SUM.

664. Learning Theories. Advanced course in theories of learning with emphasis on models, systems, research findings and current issues. Prereq.: 350 or 678 and graduate status in Psychology or permission of the department chairperson. 3 Cr. DEMAND.

665. Appraisal Techniques. Analysis of appraisal techniques used in Counseling. Information, sources, assembly, and use in the counseling process. 3 Cr. F, SUM.

666. Small Group Counseling Process. Didactic instruction in small group process and practice in such process. Lecture and laboratory. 3 Cr. F, W, S, SUM.

667. Career Development. Consideration of some of the more outstanding theories, materials, procedures and problems pertinent to the counselor's work in the area of career development and decision making. 3 Cr. F, SUM.

668. Counseling Procedures. Techniques, procedures, and practices employed in counseling; practice in interviewing. 3 Cr. F, SUM.

669. Supervised Practicum in Counseling. Application of theory and techniques to counseling. Prereq.: 651, 665, 667 and 668. May be repeated. 3-6 Cr. F, W, S, SUM.

670. Developmental Psychology. Advanced course in human growth and development, emphasis on trends, problems, theoretical considerations, and contemporary research. 3 Cr. S.

677. Seminar in Counseling. Careful consideration of problems, issues, and research in professional counseling. 3 Cr. F, SUM.

678. Introduction to Graduate Statistics. A review and extension of correlation and regression analysis; introduction of probability and sampling theory; estimating population parameters; testing hypothesis. Prereq.: 350 or 463. Familiarity with descriptive statistics assumed. 3 Cr. F, W, S, SUM.

679. Seminar: Research Planning. Consideration of research design and tools. Development of project outline within the interest area of each student and presentation for critical review to members of the seminar. 3 Cr. W.

680. Organizational Psychology. Psychology of individual and group behavior in the organizational complex; contemporary research and implications for administration and management; motivation, influence, communication, group processes, leadership, supervision. 3 Cr. DEMAND.

681. Inferential Statistics I. Set Mathematics, probability theory and statistical inference, linear correlation and regression, and the design and analysis of single factor experiments. Prereq.: 351 or 678 or permission of the chairperson. 4 Cr. DEMAND.

682. Inferential Statistics II. Experimental blocking and covariance, multiple correlation and regression, curvilinear correlation and regression, and the design and analysis of multivariate experiments. Prereq.: 681. 4 Cr. DEMAND.

686. Binet. Measurement of intelligence by means of the Stanford revision of the Binet-Simon technique; demonstrations, lectures, practice in administration of tests; observation of individual instructor. Admission by department approval. 3 hours lab. 3 Cr. DEMAND.

687. Wechsler. Measurement of Intelligence by means of the Wechsler scales with primary emphasis of the Wechsler Intelligence Scale for Children - revised. Emphasis is placed on interpreting the results and building intellectual skills. Admission by department approval. 8 hours lab. 3 Cr. SUM.

689. Seminar: Research Reporting. Reporting of research planned in 679 and subsequently implemented. Preparation of reports in accordance with APA publication standards and presentation to seminar. Prereq.: 679. 3 Cr. S.

696. Internship in Counseling. Supervised experience in agencies. Prereq.: 669. 1-16 Cr. F, W, S, SUM.

698. Practice in Small Group Process. Supervised practicum in conducting small group counseling sessions. Prereq.: 666. 3 Cr. DEMAND.

699. Master's Thesis. 6-9 Cr. F, W, S, SUM.





Graduate programs in the College of Fine Arts serve differing kinds of needs: the needs of persons preparing for professional careers in one of the arts; the needs of certified elementary, secondary, vocational or junior college teachers preparing to specialize in an art; the needs of graduate students preparing for a career in research and teaching on the university level; and the needs of college and university graduates who wish to continue their personal or professional development. The College stresses high performance capability in a graduate specialization built upon a wide undergraduate base.

COLLEGE OF FINE ARTS

William Bunch, Dean

ART (ART)

Chairperson: James Roy

Graduate Faculty: Roy, Aiken, Alhelm, Brown, Coen, Ellingson, Gutteter, Halberg, Hare, Korte, Mills, Rudans, Wallin

MASTER OF ARTS

The applicant for admission to this program must have the equivalent of an undergraduate major in Art. For unconditional admittance, the student must have an undergraduate honor point ratio of 2.8 or above; applicants whose undergraduate honor point ratio is less than 2.8 may be admitted conditionally. The applicant must also submit a portfolio of original work. Contact the Chairperson, Department of Art, for specific instructions of what should be included in the portfolio and how it should be submitted.

At least 15 credits must be earned in art courses in which enrollment is limited to graduate students.

Plan A: Min., 46 Cr.

- I. Min. of 18 Cr. earned in one major field of studio art. Majors available in Ceramics, Painting, Printmaking, Photography, Fibers, Sculpture, Glassworking, and Jewelry.
Min. of 9 Cr. earned in one minor field of studio art. Minors available in any of the above major areas.
Min. of 12 Cr. earned in Art History. Min. of 4 Cr. of electives earned in Art History or studio art.
Min. of 3 Cr. of Creative Work (ART 698) in the candidate's major field of study. This is accomplished by a written analysis or description of the work and an abstract thereof.
- II. A quarterly review of studio work completed in the major field of study must show satisfactory achievement.

The candidate will complete a successful exhibit of creative work during the last quarter of residence. The department reserves the right to keep work from the exhibition. This work becomes part of the permanent collection of the departmental gallery.

MASTER OF SCIENCE — Art Education

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed at least an undergraduate minor in Art in order to choose it as a major at the graduate level. In some cases, it may be necessary for the applicant to complete some prerequisite undergraduate work even though the student may have completed an undergraduate major or minor.

Students pursuing a Master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 46 Cr.**I. Research: Min. 9-12 Cr.**

ED 615 Introduction to Research, 3 Cr.

OR

ART 685 Research in Art Education, 3 Cr.

ART 699 Master's Thesis, 6-9 Cr.

II. Major: Min., 18 Cr.

Prescribed:

ART 687 History of Art Education in Europe and America, 2 Cr.

Minimum of 16 Cr. to be selected with major adviser.

III. Professional Education: Min., 9 Cr.

Credits to be selected with approval of Professional Education adviser.

IV. Electives: Min., 10 Cr.**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

530. Ancient and Classical Art. The art of the great ancient civilizations including Egyptian, Mesopotamian, Aegean, Greek, Etruscan, and Roman. 4 Cr. DEMAND.

531. Early Christian and Medieval Art. Christian art from the catacombs of Rome to the Gothic Cathedrals of Western Europe and the art of the Byzantine Empire. 4 Cr. DEMAND.

532. Renaissance Art. The art of the Italian Renaissance beginning with Giotto and including the masters of 15th and 16th century northern Europe. 4 Cr. DEMAND.

533. Baroque and Rococo Art. European Art of the 17th and 18th Centuries including El Greco, Rembrandt, Bernini, etc. 4 Cr. DEMAND.

534. European 19th Century Art. Neo-Classicism, Romanticism, Realism, Impressionism, and Postimpressionism are emphasized. 4 Cr. DEMAND.

535. History of American Art I. Art of America from the Indian cultures through the United States of the pre-Civil War period. 4 Cr. DEMAND.

536. History of American Art II. Painting, sculpture, architecture, prints, and crafts from the Civil War to present. 4 Cr. DEMAND.

537. Modern Art. The great modern movements of the 20th century including Fauvism, Cubism, Constructivism, de Styl, Dada, Surrealisms, Abstract Expressionism, etc. Also includes innovations in architecture such as those associated with the Bauhaus. 4 Cr. DEMAND.

572. Ceramics Studio Equipment and Kiln Construction. Design and construction of clay working equipment, use of refractories and fuels in kiln technology. Prereq.: 370 or 371. 3-9 Cr. IRR.

573. Ceramic Studio Operation and Management. Apprenticeship and studio visitation. Prereq.: 470 or 471. 3-9 Cr. IRR.

574. Specified Culture or Area of Ceramic Art History. Guest lecturer. Prereq.: 270, 320. 4 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

606. Photography I. A studio-research course designed to increase the student's familiarity with contemporary notions of photographic art in relationship with his/her personal work and historical perspective. Prereq.: two courses in undergraduate photography or permission of department chairperson. 3-9 Cr. F, W, S, SUM.

607. Photography II. Application of photography as a research tool in documenting reality with emphasis on the variables of perception and the technology of the media. Prereq.: 606. 3-9 Cr. F, W, S, SUM.

615. Life Drawing I. Practice in pictorial composition with various techniques and media of expression. Emphasis on anatomy of human body. 3-9 Cr. F, W, S, SUM.

616. Life Drawing II. Advanced practice in pictorial composition with various techniques and media of expression. Emphasis on anatomy of human body. 3-9 Cr. DEMAND.

620. Advanced Theory. Foundations of criticism, form analysis, psychology, and philosophy of art. 4 Cr. DEMAND.

630. Art Seminar. Lectures, readings and discussions on selected artists and their works. May be repeated. 1-4 Cr. Max. 9 Cr. F, W, S, SUM.

641. Painting I. Advanced expression in the painting media; organization, color and technique. Prereq.: two undergraduate courses in painting or permission of the department chairperson. 3-9 Cr. F, W, S, SUM.

642. Painting II. Continued work in painting media leading to development in individual expression. Prereq.: 541. 3-9 Cr. F, W, S, SUM.

643. Watercolor Painting. Practice in transparent watercolor painting, casein, tempera, and combined media. 2-6 Cr. DEMAND.

651. Prints and Composition I. Advanced experience in printing methods and composition. Developing previously learned techniques. Prereq.: 2 undergraduate courses in printmaking or permission of the department chairperson. 3-9 Cr. F, W, S, SUM.

652. Prints and Composition. Advanced experiences in printing methods and composition. Intense concentration in a selected printing method. Prereq.: 651. 3-9 Cr. F, W, S, SUM.

661. Sculpture I. Advanced work in three-dimensional organization of form; individual concentration toward competent expression in sculpture media. Prereq.: 2 undergraduate courses in sculpture or permission of the department chairperson. 3-9 Cr. F, W, S, SUM.

662. Sculpture II. Continued work in sculpture media with emphasis on casting metals. Prereq.: 661. 3-9 Cr. F, W, S, SUM.

670. Ceramic Sculpture. Creative expression in the ceramic media, composite construction. Prereq.: Intermediate, undergraduate proficiency in ceramics and permission of department chairperson. 3-9 Cr. F, W, S.

671. Throwing. Advanced work utilizing the potter's wheel, glazing and firing. Prereq.: 2 undergraduate courses in ceramics or permission of department chairperson. 3-9 Cr. F, W, S, SUM.

672. Ceramics. Continued work in the ceramic media with emphasis on clay and glaze technology, kiln supervision. Prereq.: 670 or 671. 3-9 Cr. F, W, S, SUM.

676. Fibers. Advanced creative experiences in design and production on various looms; characteristics of looms, principles of textile construction, and materials of the weaver. Prereq.: 2 undergraduate courses in weaving or permission of the department chairperson. 3-9 Cr. F, W, S, SUM.

677. Fibers II. Emphasis upon the unique surface quality and surface decoration possibilities with fibers may include screening, canning, resist, batik, stitching, applique, quilting, etc. Prereq.: 676. 3-9 Cr. F, W, S, SUM.

681. Metals. Advanced experience in jewelry design, silversmithing, and casting by the lost wax method. Prereq.: 2 undergraduate courses in jewelry and enameling or permission of the department chairperson. 3-9 Cr. F, W, S, SUM.

682. Metals II. Advanced experiences in jewelry design, silversmithing, and casting by the lost wax method. Prereq.: 681. 3-9 Cr. F, W, S, SUM.

685. Research in Art Education. Current experiments in art education and closely related fields. Required of students working for a Master's degree in art. 3 Cr. DEMAND.

686. Current problems in Art Education. Statement, analysis and evaluation of art problems evidenced in contemporary living, in school, home and community. 3 Cr. DEMAND.

687. History of Art Education in Europe and America. Historical development of philosophies in art education in the United States and Europe. Required for students working for a Master's degree in art. 2 Cr. DEMAND.

688. Glassworking I. Advanced work in glassworking techniques with emphasis on individual concentration toward competent expression in glass. Prereq.: two undergraduate courses in Glassworking or permission of the department chairperson. 3-9 Cr. F, W, S, SUM.

689. Glassworking II. Continued advanced work in Glassworking. Prereq.: 688. 3-9 Cr. F, W, S, SUM.

696. Supervision of Elementary School Art. Methods and practices of supervision in relation to art programs in the elementary school. Prereq.: 290, 390, 490. 3 Cr. DEMAND.

697. Art for the Exceptional Child. The role of creative art activity for the exceptional child. To include the physically and mentally handicapped as well as the gifted child. Prereq.: 290, 390, 490. 4 Cr. DEMAND.

698. Creative Work. 3-9 Cr. F, W, S, SUM.

699. Master's Thesis. 3-9 Cr. F, W, S, SUM.

MUSIC (MUSM, MUSP, MUSE)

Chairperson: David Ernest

Graduate Faculty: Ernest, Barrett, Echols, Flom, Frohrip, Gyllstrom, J. Johnson, Joines, Layne, Schrader, Wilhite

St. Cloud State University is accredited by the National Association of Schools of Music.

MASTER OF SCIENCE — Music Education

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution, must have completed at least an undergraduate minor in Music, and must meet the admission requirements of the Office of Graduate Studies. When an applicant holds a minor in Music, undergraduate course work will be required to bring the student to a major program level. Acceptance into a graduate program is determined by musical knowledge, experience and performance.

Students pursuing a Master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 45 Cr.; Plan B, 48 Cr.

I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3-6 Cr.

MUSE 670 Introduction to Research in Music Education (or equivalent), 3 Cr.

MUSM 699 Master's Thesis, 6-9 Cr. (Plan A only)

or

MUSM 698 Creative Work, 6-9 Cr. (Plan A only)
3 Cr. electives in research optional (Plan B only)

II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.

Prescribed:

MUSM 604 Analytical Techniques, 4 Cr.

Applied Music (consent of adviser), 4 Cr.

MUSP 611, 613, 615, 617, 626, 638, 648 (private lessons) or

MUSP 580 (secondary instrument) or
 MUSP 570, 656, 667 (performing and conducting), Max., 2 Cr. each.
 MUSE 603 Curriculum Development, 4 Cr.
 MUSM 682 Music Literature I, 4 Cr.
 Electives: Min., Plan A, 2 Cr.; Plan B, 12 Cr.

III. Professional Education: Min., 9 Cr.

Credits to be selected with approval of Professional Education adviser.

IV. Electives: Min., Plan A, 3-9 Cr.; Plan B, 9 Cr.

MUSIC MUSICIANSHIP (MUSM) COURSES FOR UNDERGRADUATE AND GRADUATE STUDENTS (600 LEVEL FOR GRADUATE STUDENTS ONLY.)

MUSM KEY

0 = Theory
2 = History
3 = Not Assigned
4 = Pedagogy & courses related to specific field
8 = Seminar
9 = Thesis, creative work

502. Composition I. The utilization of harmonic and contrapuntal techniques in developing original composition in various forms. Prereq.: MUSM 205. 2 Cr. W.

503. Composition II. A continuation of MUSM 502. Prereq.: MUSM 502. 2 Cr. S.

504. Electronic Music. Music of electronic composers and their techniques including practical experience in the application of basic techniques. 2 Cr. S.

506. Acoustics of Music. Nature of sound and its application in music; characteristics of sound waves; vibratory sources of music sounds; physical basis of harmony and scales. Prereq.: MUSM 205. 2 Cr. IRR.

520. Contemporary Music. Trends in European and American music from about 1910 to the present day. Particular emphasis placed on music since 1920. Prereq.: MUSM 222 and 223. 2 Cr. S ALT.

522. Choral Literature. The art-song, the large vocal forms, and opera. An evaluation of the aesthetic, stylistic, musical and dramatic principles and their application in works from the 18th century to present. Prereq.: MUSM 222 and 223 or permission. 2 Cr. S ALT.

526. Music of the Baroque and Classical Periods. A comprehensive study of the history and literature of the 18th century. 4 Cr. IRR.

528. Music of the Romantic Period. The history and literature of the 19th century. 4 Cr. IRR.

542. Voice Pedagogy. Basic problems and techniques in the teaching of voice and chorus. Survey of procedures and materials. 2 Cr. W.

543. Piano Pedagogy. Professionalized subject matter intended to broaden the understanding of the basic pedagogical problems of teaching private and class piano; a survey of available methods and materials. 2 Cr. W.

544. Double-Reed Construction. The construction of reeds for oboe, bassoon, and English horn, with attention to varying shapes and facings, intonation problems, tone procurement and adjustment of reeds to fit the individual and instrument. 4 Cr. IRR.

545. Musical Instrument Repair. Consideration of instrument care, upkeep, and minor repair. 2 Cr. IRR.

601. Functional Harmony. Organization of harmonic structure; geared to needs of music educators in elementary and secondary schools. 3 Cr. IRR.

602. Canon and Fugue. Contrapuntal practices employed in the canon and fugue with primary attention to the works of Bach. 2 Cr. IRR.

604. Analytical Techniques. Harmonic, melodic, and structural analysis of music in various periods with emphasis on those aspects specifically needed by students. 4 Cr. S.

606. Choral Arranging. Principles and devices in choral arranging for choruses of all types and degrees of development. 4 Cr. IRR.

620. Music in Western Civilization. Primarily for students who want a general studies elective in music. Examination of music masterpieces, continuation and elaboration of MUSM 120. Not open to students with majors or minors in music. 3 Cr. IRR.

630. Psychology of Music. Function of the musical mind; factors in the development of musical skills and maturity. 3 Cr. IRR.

631. Aesthetics. An analysis of aesthetic theories from Pythagoreanism to twentieth century theories as applied in music. 3 Cr. IRR.

640. Band Rehearsal Techniques. Practice in aural discrimination of performance errors and application of corrective procedures. Special emphasis given to intonation, balance, blend, quality, interpretation, and ensemble. 2 Cr. IRR.

646. Stringed Instrument Pedagogy. Special projects; special techniques of bowing, position work, and artistic skills; survey of solo materials. 2 Cr. IRR.

647. Brass Pedagogy. Basic pedagogical problems and techniques of each brass instrument. Methods and materials for teaching brass instruments. 2 Cr. IRR.

648. Woodwind Pedagogy. Basic pedagogical problems and techniques of each woodwind instrument. Methods and materials for teaching woodwinds. 2 Cr. IRR.

681. Music History Symposium. Music history structured to meet the needs and interests of the class. 3 Cr. IRR.

682. Music Literature. Major works of composers ranging from Bach to Schoenberg, with special emphasis given to aesthetics and evaluation. 4 Cr. S.

698. Creative Work. 6-9 Cr. F, W, S, SUM.

699. Master's Thesis. 6-9 Cr. F, W, S, SUM.

**MUSIC PERFORMANCE (MUSP) COURSES FOR
UNDERGRADUATE AND GRADUATE STUDENTS
(600 LEVEL FOR GRADUATE STUDENTS ONLY.)
PRIVATE LESSONS AT GRADUATE LEVEL ARE 1 HOUR.**

MUSP KEY

<u>0</u> = Class Instruction	<u>5</u> = Chamber Ensembles
<u>1</u> = Piano, organ, guitar, percussion, voice	<u>6</u> = Larger ensembles
<u>2</u> = Strings	<u>7</u> = Conducting
<u>3</u> = Brass	<u>8</u> = Seminar
<u>4</u> = Woodwind	<u>9</u> = Recital

570. Conducting. Analysis, rehearsal, and performance of a major composition with the band, choir, or orchestra. Prereq.: consent of instructor. 1 Cr. May be repeated. Max. 2 Cr. F, W, S.

580. Private Lessons: Secondary Instrument (please specify). Prereq.: consent of instructor. 1 Cr. May be repeated. Max. 4 Cr. F, W, S.

611. Private Lessons: Piano. Prereq.: approval of instructor. 1 Cr. May be repeated. Max. 9 Cr. F, W, S.

613. Private Lessons: Organ. Prereq.: approval of instructor. 1 Cr. May be repeated. Max. 9 Cr. F, W, S.

615. Private Lessons: Voice. Prereq.: approval of instructor. 1 Cr. May be repeated. Max. 9 Cr. F, W, S.

617. Private Lessons: Percussion Instruments. Prereq.: approval of instructor. 1 Cr. May be repeated. Max. 9 Cr. F, W, S.

626. Private Lessons: String Instruments. Prereq.: approval of instructor. 1 Cr. May be repeated. Max. 9 Cr. F, W, S.

638. Private Lessons: Brass Instruments. Prereq.: approval of instructor. 1 Cr. May be repeated. Max. 9 Cr. F, W, S.

648. Private Lessons: Woodwind Instruments. Prereq.: approval of instructor. 1 Cr. May be repeated. Max. 9 Cr. F, W, S.



656. Chamber Music Performance. Study and performance of chamber music. Prereq.: consent of adviser. 1 Cr. May be repeated. Max. 2 Cr. F, W, S.

667. Major Performing Organization. Participation in an assigned sectional rehearsal of the band, choir, or orchestra. Prereq.: consent of instructor. 1 Cr. May be repeated. Max. 2 Cr. F, W, S.

MUSIC EDUCATION (MUSE) COURSES FOR UNDERGRADUATE AND GRADUATE STUDENTS (600 LEVEL FOR GRADUATE STUDENTS ONLY.)

MUSE KEY

<u>0</u> = Foundation Course	<u>0</u> = General
<u>1</u> = Elementary Education or Primary	<u>1</u> = Elementary
<u>2</u> = Intermediate Grades	<u>2</u> = Secondary Grades
<u>3</u> = Secondary Grades	<u>3</u> = Resources
<u>4</u> = Instrumental Classes	<u>4</u> = Instrumental
<u>5</u> = Vocal	<u>5</u> = Vocal
<u>6</u> = Administration	<u>6</u> = Strings
<u>7</u> = General	<u>7</u> = Brass
<u>8</u> = Seminar	<u>8</u> = Woodwinds
	<u>9</u> = Percussion

603. Curriculum Development. A philosophical and historical study of the problems of music curricula development with emphasis on current practices. 4 Cr. F.

653. Vocal Music Education Resources. Recent materials for use in the total music program. Prereq.: approval of department. 3 Cr. IRR.

662. Teaching and Administration of Music in Junior and Senior High Schools. Place of music in education for adolescents; materials and activities. Prereq.: MUSE 311, MUSE 332. 3 Cr. IRR.

664. Instrumental Administration. Administrative principles applied to school bands, with special emphasis on organization, promotion, and public relations. 2 Cr. IRR.

665. Elementary Vocal Music Administration. Advanced work in music administration; co-teaching; conferences; workshops; resource units; developmental music programs; professional relations. 3 Cr. IRR.

670. Introduction to Research in Music Education. Materials, techniques, and procedures for research in music education. 3 Cr. W.

671. Music for the Classroom Teacher. Advanced methods in teaching music in the first six grades. Not open to students with music major. Prereq.: MUSE 211 and 221. 4 Cr. IRR.

672. Music for the Exceptional Child. Methods and materials to be utilized in a music program designed for the exceptional child. 3 Cr. IRR.

680. Music Education Seminar. Research and discussion of latest developments. Individual problems analyzed and discussed. 2 Cr. IRR.

THEATRE (TH)

Chairperson: Ronald Perrier

Graduate Faculty: Perrier, Baschky, Cermele, Delgado

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

542. Theory and Practice of Stage Lighting. Basic requirements of lighting for the stage. Lab. 4 Cr. F.

544. Internship in Theatre. In-residence training with a cooperating professional theatre. Admission by departmental approval only. 4-16 Cr. F, W, S.

546. Advanced Theatre Practicum. Lab. course for advanced theatre majors allowing implementation of creative problems in acting, directing, and design and other theatre areas. 1-4 Cr. F, W, S.

547. Scenic Design II. Continuation of Scenic Design I. Lab. Prereq.: 346. 3 Cr. DEMAND.

548. Acting II. Analyzing and creating a stage character. Prereq.: 248. 3 Cr. W.

549. Directing II. Advanced directing techniques. Prereq.: 349. 3 Cr. W.

558. Acting III. Concentration on period styles. 4 Cr. S.

559. Directing III. Continuation of Directing II. 3 Cr. S.

560. Theatre Promotion and Business Management. Principles and methods of management in educational, community and professional theatres. Emphasis on promotion, ticket office procedure and theatre administration. 4 Cr. S.

581. Theatre History I. A chronological survey of the various arts and crafts of the theatre from the earliest origins to the mid-nineteenth century. 4 Cr. W.

582. Theatre History II. A chronological survey of the various arts and crafts of the theatre from the mid-nineteenth century to the present day. Prereq.: 581. 4 Cr. S.

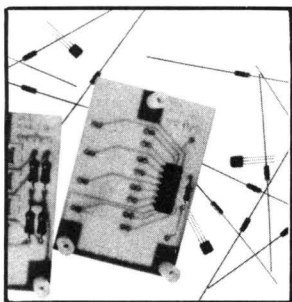
591. Drama I. World drama; its origins to early English Renaissance. 4 Cr. F.

592. Drama II. World drama; from English Renaissance to early twentieth century. Prereq.: 591. 4 Cr. W.

593. Drama III. World drama; twentieth century. Prereq.: 591. 4 Cr. S.

596. Summer Theatre. Theatre production for advanced students. Experience in acting, directing, costuming, construction, promotion, lighting and other disciplines during the summer season. Registration by application only. 1-8 Cr. SUM.





Among the goals of the College of Industry is a commitment to provide graduate programs and post-graduate courses in an effort to support specific professional preparation for graduate students, and to provide broadly based courses for persons who are interested in being informed and be able to take an active part in the technological/educational world in which they live. Lifelong learning is recognized as a requisite for continued professional and personal growth, as well as being a catalyst for helping to solve the problems of a dynamic society. Following are descriptions of graduate programs of study, as well as post-graduate courses currently being offered by the College of Industry.

COLLEGE OF INDUSTRY

A. A. Lease, Dean



CENTER FOR DRIVER EDUCATION AND SAFETY (DTS)

Director: Howard Matthias

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

586. Advanced Traffic Safety Teaching Techniques. An analysis and practical application of advanced teaching methods in classroom and laboratory. Prereq.: 290, 390, 491, or teaching experience in traffic safety education. 3 Cr. W ALT.

587. Problems and Methods of Driver Education. The identification, analysis and appraisal of selected problems related to the administration and supervision of traffic safety programs. Prereq.: teaching experience in traffic safety education. 3 Cr. F, S.

INDUSTRIAL EDUCATION (IND)

Chairperson: William Lacroix

Graduate Faculty: Lacroix, Bergstrom, Carter, Kemp, Lease, Nestel

MASTER OF SCIENCE

An applicant for admission to the Master of Science degree in Industrial Education must meet the following requirements:

1. A baccalaureate degree from an accredited college or university.
2. A Minnesota Vocational Teacher License in Industrial Education or have completed an undergraduate industrial teacher education program from an accredited teacher preparation institution.
3. An acceptable score on the Graduate Record Examination and/or acceptable undergraduate scholarship.

In some cases, it may be necessary for the applicant to complete some prerequisite undergraduate work even though the student may have an undergraduate major or minor.

Students pursuing a Master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 45 Cr.; Plan B, 48 Cr.

- I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3-6 Cr.
ED 615 Introduction to Research, 3 Cr.
IND 699 Master's Thesis, 6-9 Cr. (Plan A only)
- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.
Credits to be selected with major adviser.
- III. Professional Education: Min., Plans A and B, 9 Cr.
Credits to be selected with approval of Professional Education Adviser.
- IV. Electives: Min., Plan A, 3-9 Cr.; Plan B, 9-12 Cr.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

515. Vocational Guidance. Acquisition, development, and the dissemination of occupational and guidance information. 3 Cr. S, SUM ALT.

517. Organization and Administration of Industrial Education. Organization and administration of secondary, post-secondary, adult, and special needs classes. 3 Cr. W ALT, SUM ALT.

518. Conference Leading. Techniques and practices employed in leading and participating in conferences. 3 Cr. W ALT, SUM ALT.

524. Photo Offset Lithography. Advanced techniques in photo offset lithography, including line and continuous tone copy preparation, line and halftone photography, stripping and flat making, platemaking, and press operation. (3 lab. hours per week by arrangement required.) Prereq.: 225. 3 Cr. S ALT, SUM ALT.

525. Color Separation. Introduction to color separation procedures. Basic color theory, direct and indirect color separation, continuous tone intermediates, filtering, masking, screening, and color proofing. (3 lab. hours per week by arrangement required.) Prereq.: 424-524. 3 Cr. S ALT, SUM ALT.

531. Evaluation in Industrial Subjects. Processes of evaluation and problems of measuring achievement in industrial-technical areas. Selection, development and validation of evaluative instruments and techniques. 3 Cr. S ALT, SUM ALT.

551. Selection and Organization of Subject Matter. Planning and organizing instruction for industrial education programs. Preparation of curriculum guides, courses of study, and instructional materials. 3 Cr. S ALT, SUM ALT.

552. Laboratory Planning and Safety. Theory and practice in planning industrial education laboratories; selection and arrangement of equipment; safety factors involved. 2 Cr. F, SUM ALT.

553. Individualized Instruction. Utilizing individualized instruction for designing new courses or converting existing ones to an individualized learning approach. Emphasis will be placed upon techniques and the use of media. 3 Cr. F, SUM ALT.

598. Internship. Offered only to students who hold internship with industrial organizations for which advanced approval has been given by the department. 1-8 Cr. May be repeated; however, a max. of 8 Cr. will count toward a graduate degree. F, W, S, SUM.

COURSES FOR GRADUATE STUDENTS ONLY

601. Technology and the Individual. Effects of invention and technological development on society with implication for general education. Not open to industrial education majors. 3 Cr. F, S, SUM.

604. Current Issues of Industry. Current industrial issues, events, advancements and their effects on industrial education. Not open to students taking or who have taken 601. 3 Cr. W ALT, SUM ALT.

615. Seminar:_____. Seminar presentation on a selected Industrial Education topic. Permission of department required. 1-4 Cr. May be repeated. Max. 9 Cr. W ALT, SUM ALT.

632. Technical Problems (Graphic Communications). Technical study for specialists in graphic communications. Recent developments, experimentation and technical reports. (3 lab. hours per week by arrangement required.) 3 Cr. W ALT, SUM ALT.

640. Technical Problems (Manufacture). Technical study for specialists in the manufacturing industry. Recent developments, experimentation and technical reports. (3 lab. hours per week by arrangement required.) 3 Cr. F ALT, SUM ALT.

663. Technical Problems (Synthetics). Technical study for specialists in the area of synthetics. Recent developments, experimentation and technical reports. (3 lab. hours per week by arrangement required.) 3 Cr. S ALT, SUM ALT.

665. Technical Problems (Construction). Technical study for specialists in the construction industry. Recent developments, experimentation and technical reports. (3 lab. hours per week by arrangement required.) 3 Cr. S ALT, SUM ALT.

668. Current Literature and Research. Analysis of literature of the industrial field, with special attention to individual readings and reports, implications of such literature for current problems in industrial education. 4 Cr. S ALT, SUM ALT.

673. Leaders and Movements in Industrial Education. Contributors to development of industrial education with special attention to economic, social and philosophical factors motivating this development. 4 Cr. F ALT, SUM ALT.

683. Technical Problems (Energy and Power). Technical study for specialists in the energy and power field. Recent developments, experimentation and technical reports. (3 lab. hours per week by arrangement required.) 3 Cr. W ALT, SUM ALT.

699. Master's Thesis. 6-9 Cr. F, W, S, SUM.

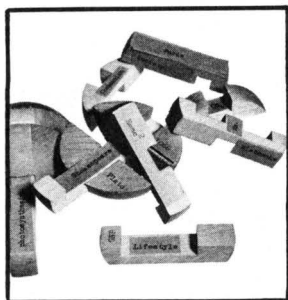
TECHNOLOGY (TECH)

Chairperson: Robert Ryan

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

571. Consumer Electronics. A study of the circuits and systems employed in popular home entertainment devices such as radio, T.V., and hi-fi. Emphasis will be placed on the set-up, maintenance and troubleshooting of these devices. 2 Cr. DEMAND.

572. Advanced Semiconductor Devices and Applications. In-depth study of digital and linear integrated circuits, compound semiconductors, photo-diodes, LED's, semiconductor laser, liquid crystal, and other state of the art topics. 4 Cr. DEMAND.



Through its 17 departments and interdepartmental programs, the College of Liberal Arts and Sciences provides education in a variety of professional skills at the post-graduate and graduate levels. It is our purpose to prepare students to assume various roles in society and provide them with the skills and knowledge necessary not only for useful and gainful employment, but for an understanding of the varieties of the human condition, its experiences, and its possibilities.

Following are descriptions of post-graduate and graduate programs of study currently offered in the College of Liberal Arts and Sciences.

COLLEGE OF LIBERAL ARTS AND SCIENCES

Louise H. Johnson, Dean

Jonathan N. Lawson, Associate Dean



BIOLOGICAL SCIENCES (BIOL)

Chairperson: Charles Rehwaldt

Graduate Faculty: Rehwaldt, H. Barker, Bruton, Clapp, Coulter, Cronn, Ezell, Grewe, Gundersen, Hopkins, Hopwood, V. Johnson, K. Knutson, Kramer, S. Lewis, Lindstrom, McCue, D. Mork, Partch, Peck, D. Peterson, C. Pou, Torrence, S. Williams

MASTER OF ARTS

The applicant for admission must have earned a minimum of 48 credits in biology and 12 credits in chemistry before admission to this program. In some cases it may be necessary for the student to complete additional prerequisite undergraduate work. At least 15 credits must be earned in the major in which enrollment is limited to graduate students.

Plan A, 45 Cr.; Plan B, 45 Cr. (Starred Papers).

- I. Courses in Biological Sciences: Min., 30 Cr.
 - A. Prescribed:
 - Plan A: 699 Master's Thesis, 6-9 Cr.
 - Plan B: Three starred papers written in conjunction with approved graduate courses.
 - B. Electives: From 21 to 24 Cr. must be earned in Biology courses.
- II. Related Fields: A max. of 15 Cr. may be earned in approved related fields.

A student completing the Plan B program will be required to pass a final oral examination based on the starred papers submitted to the final evaluation committee (see page 26 of the Graduate Bulletin); however, a Final Written Comprehensive Examination is **not** required.

Department policy statements on evaluation procedures, starred papers, and reading lists, are available in the department office. Students are encouraged to obtain pertinent material no later than the first quarter of enrollment.

MASTER OF SCIENCE

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed a minimum of 48 undergraduate credits in biology. In some cases it may be necessary for the student to complete additional prerequisite undergraduate work.

Students must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 45 Cr.; Plan B, 48 Cr.

- I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3 Cr.
 - BIOL 696 Research Reporting, 3 Cr.
 - or
 - ED 615 Introduction to Research, 3 Cr.
 - BIOL 699 Master's Thesis, 6-9 Cr. (Plan A only)
- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.
 - Credits to be selected with major adviser.
- III. Professional Education: Min., Plan A or B, 9 Cr.
 - Consent of Secondary Education Adviser.
- IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

- 502. Systematic Botany.** Principles of plant taxonomy; species concept and speciation; methods in biosystematics, chemotaxonomy, and numerical taxonomy. Lab. Prereq.: 332 or 345. 4 Cr. F ALT.
- 504. Protozoology.** Taxonomy, ecology, physiology, economic importance of the protozoa. Lab. Prereq.: 203. 4 Cr. SUM ALT.
- 505. Radiation Biology.** Introduction to radiation, laws governing its use, medical uses, and its effects on humans. Lab. Prereq.: 202, 203, or 464-564, 332, CHEM 211. 4 Cr. W.
- 508. Cell Metabolism.** The metabolic processes of cells. Lab. Prereq.: 303, CHEM 212 or 213. 4 Cr. S.
- 509. Biological Techniques.** Collection, preparation, and display of biological materials. Lab. 2 Cr. S ALT.
- 511. Human Heredity.** Human heredity as a component in function, behavior and evolution. Social and political interactions. Not open to biology majors or minors. 4 Cr. S.
- 512. Biology of Aging.** Study and discussion of changes in the physiology of biological processes at the organism, organ, cell and subcellular levels. 3 Cr. W.
- 513. Electron Microscope Techniques.** Specimen preparation, mechanics and operation of the transmission and scanning electron microscopes. Lab. Prereq.: 303. 4 Cr. F, W, S.
- 515. Aquarium Science.** Setting up and maintaining aquaria; testing and trouble shooting; nutrition and feeding; infections and infestations. 1 Cr. DEMAND.
- 519. Wildlife Parasitology.** Host-parasite interactions, techniques for the collection, identification, and preservation of specimens. Lab. Prereq.: 201, 203, 439-539. 4 Cr. F ALT.
- 520. Seminar.** Lectures, readings, and discussion on selected topics. May be repeated once. 1 Cr. F, W, S, SUM.
- 521. Laboratory Practicum.** Techniques, skills and practical experiences. May be repeated once. Designed for B.S. majors and minors in Biology. 1 Cr. F, W, S, SUM.
- 522. Ichthyology.** The systematics, anatomy, physiology, and natural history of fishes, with special emphasis on local freshwater forms. Lab. Prereq.: 203. 4 Cr. S.
- 523. Environmental Science for Teachers.** Classroom and field techniques useful in the analysis and interpretation of the interrelations of biotic and abiotic environmental factors. Prereq.: 326 or consent of instructor. 3 Cr. F.
- 525. Common Animals of Minnesota.** Recognition, habits, and economic importance of invertebrates and vertebrates of Minnesota. Not open to biology majors or minors. Lab. 4 Cr. S ALT.
- 526. Herpetology.** The systematics, anatomy, physiology, and natural history of reptiles and amphibians. Lab. Prereq.: 203. 4 Cr. S.
- 529. Marine Biology.** The ocean and marine organisms; their relation to humans. Prereq.: 301. 3 Cr. W ALT.
- 532. Molecular Genetics.** Biochemical approach to inheritance and development. Lab. Prereq.: 332 and 344. 4 Cr. W.
- 533. Aquatic Plants.** Taxonomy and ecology of aquatic plants, including vascular plants, mosses and selected algae and fungi. Lab. Prereq.: 301 and 345. 4 Cr. SUM ALT.
- 534. Freshwater Algae.** Morphology, taxonomy and ecology of algae of lakes, ponds, streams, bogs and soils. Lab. Prereq.: 202. 4 Cr. F, SUM ALT.
- 535. Comparative Animal Physiology.** Comparative study of functional mechanisms in the various phyla. Prereq.: 203, 303, CHEM 211. 3 Cr. S.
- 536. Plant Physiology.** Principles of metabolic processes of higher plants. Lab. Prereq.: 202, 303, CHEM 211. 4 Cr. W.
- 537. Plant Morphology.** Survey of plant kingdom with emphasis on structure and form of primitive plants. Lab. Prereq.: 202. 4 Cr. W.
- 538. Freshwater Invertebrates.** Collection, preservation and classification of local species. Lab. Prereq.: 341. 4 Cr. S ALT, SUM ALT.

- 539. General Parasitology.** Animal parasites and their relation to diseases of humans and other animals. Lab. Prereq.: 201, 203 or 464-564. 4 Cr. F, S, SUM ALT.
- 540. Mycology.** Structure, development, and identification of fungi with emphasis on species of economic importance. Lab. Prereq.: 202. 4 Cr. F ALT.
- 541. Plant Ecology.** Relations between plants and their environment; field studies of plant communities and succession. Lab. Prereq.: 301, one course or concurrent registration in 343, or 345. 4 Cr. SUM ALT.
- 542. Embryology.** Prenatal development of human body; laboratory emphasis on chick and pig. Lab. Prereq.: 203. 4 Cr. W.
- 543. Animal Behavior.** Behavior of animals as interpreted through comparative studies and experimentation. Lab. Prereq.: 203 or consent of instructor. 4 Cr. W.
- 545. Medical Bacteriology.** Morphology, classification, techniques of culture and rapid identification of pathogenic bacteria. Lab. Prereq.: 344. 4 Cr. W, S.
- 546. Immunology.** Systems of infection and immunity with antigen-antibody relationships; and their effect on humans with respect to protection and injury. Hypersensitivity; natural and acquired immunity. Prereq.: major or pre-professional. 3 Cr. W.
- 547. Laboratory Methods in Immunology.** Preparation of antibodies, immune reactions, protein estimation, electrophoresis, fluorescent antibody and column chromatography. Lab. Prereq.: 446-546 or concurrent enrollment. 2 Cr. W.
- 548. Limnology.** Lakes and streams, their physical environment, plant and animal life and dynamic interrelations. Lab. Prereq.: 301, CHEM 212. 4 Cr. F.
- 551. Animal Ecology.** Distribution, life histories, habitat requirements, and environmental interrelations of vertebrates and invertebrates. Lab. Prereq.: 301 and one of the following: 339, 340, 341, 347. 4 Cr. S ALT.
- 552. Water and Sewage Microbiology.** Indicators of pollution, determination of numbers and kinds of micro-organisms, standards of pollution, purification of water, microbiology of sewage disposal. Lab. Prereq.: 344, CHEM 251. 4 Cr. F.
- 553. Invertebrate Zoology.** Classification, Phylogeny, anatomy, physiology, and natural history of invertebrates. Lab. Prereq.: 203. 4 Cr. F.
- 554. Wildlife Management.** General principles of wildlife management with detailed studies of selected species. Lab. Prereq.: 301. 4 Cr. F.
- 555. Physiology of Bacteria.** Comparative study of the metabolism of growth and reproduction of microbes. Lab. Prereq.: 303, 344, CHEM 251. 4 Cr. S.
- 556. Methods for Teaching Junior High School Science.** Modern approaches to teaching science in junior high school. Not open to B.A. or M.A. majors. Lab. 2 Cr. F, W, S.
- 557. Methods and Materials for Teaching Biology.** Modern approaches to teaching high school biology in classroom and laboratory; including materials of Biological Sciences Curriculum Study. Not open to B.A. or M.A. majors. Lab. 2 Cr. F, W.
- 558. Plant Anatomy.** The structure, organization and development of the plant body of higher plants. Lab. Prereq.: 202. 4 Cr. W ALT.
- 559. Organic Evolution.** History, evidence, and processes of evolution. Prereq.: 332. 3 Cr. W ALT.
- 560. Evolution and Sociobiology.** Theories and processes of biological evolution; origins of life; role of evolution in animal behavior; concepts of species and biological race. Not open to biology majors or minors. 4 Cr. W.
- 561. Economic Entomology.** Life histories and control measures for economically important insects. Lab. Prereq.: 341. 2 Cr. F ALT.
- 562. Medical Entomology.** Study of anthropods of medical and veterinary importance with emphasis on vector biology and disease ecology. Lab. Prereq.: 439-539 or consent of instructor. 4 Cr. S ALT.
- 563. Endocrinology.** A study of the morphology and physiology of the endocrine glands in physiological communication and regulation. Lab. Prereq.: 464-564, 465-565. 4 Cr. S.
- 564. Human Anatomy and Physiology I.** Structure and metabolic activity of organ systems including muscular, skeletal, nervous and integumentary. Lab. Prereq.: 303. 4 Cr. F, W, SUM.

565. Human Anatomy and Physiology II. Structure and metabolic activity of organ systems including circulatory, respiratory, digestive, urinary, endocrine and reproductive. Lab. Prereq.: 464-564. 4 Cr. W, S ALT, SUM.

566. Immunohematology. The immunology of blood groups and its application to blood transfusions, hemolytic disease of the newborn, and detailed blood group typings. Lab. Prereq.: 447-547 or concurrent registration. 3 Cr. W.

567. Hematology I. Blood cell formation and function; tests and procedures pertinent to clinical hematology. Prereq.: 309. 2 Cr. W.

568. Limnological Methods. Theory and practice in limnological sampling and analysis, emphasis on plankton, physical and chemical parameters. Lab. Prereq.: 448-548. 4 Cr. S ALT.

569. Soil Microbiology. The role of micro-organisms in the soil, their identification, culture and environmental significance. Lab. Prereq.: 303, 344. 4 Cr. W.

570. Fisheries Biology. Natural history, ecology, recreational and commercial aspects, and special methods. Lab. Prereq.: 301, 422-522. 4 Cr. F.

571. Medical Bacteriology II. Taxonomy, morphology, cultural and biochemical activities, and pathogenesis of bacteria; basic mycology and virology; emphasis on humans as required for medical technology. Prereq.: 445-545. 3 Cr. F.

572. Plant Growth and Development. Selected topics in plant physiology with emphasis on the hormonal control of plant growth and development. Lab. Prereq.: 436-536. 4 Cr. S ALT.

573. Diatoms. The morphology, identification, culture, and scanning electron microscopy of diatoms with U.S. and foreign ecological and taxonomical literature evaluation. Lab. Prereq.: 434-534. 4 Cr. F ALT.

574. Fall Ornithology. Migration patterns, fall plumage, feeding behavior, population studies. Lab. Prereq.: 347. By permission only. 4 Cr. F ALT.

575. Environmental Biology. Readings and discussions relating to environmental problems as they concern humans and other organisms. Designed for students with little or no background in biology. Biology majors and minors by permission only. 4 Cr. F.

577. Biology Institute. Selected topics on biology for experienced teachers of science. Lab. 3-6 Cr. DEMAND.

580. Economic Botany. Biology of plants and plant products which are useful to humans. Prereq.: 202, 332. 3 Cr. S ALT.

581. Fall Flora. Field characteristics and collection of vascular plants; emphasis on fruits and seeds. Intensive study of selected families and genera. Three all-day Saturday field trips. Lab. Prereq.: 343 or 345. 4 Cr. F.

584. Virology. Structure, life cycles, classification, virus-host relationships, lysogeny transformation, tumor induction. Prereq.: 303, 344. 3 Cr. F.

587. Hematology II. Hematologic diseases, pathological findings and their interpretations, and introduction to coagulation chemistry. Prereq.: 467-567. 2 Cr. F.

589. Paleobiology. Field and laboratory study of living and fossil species and geological aspects of the environment. Lab. Prereq.: 202, 203, ESCI 284. 4 Cr. F ALT.

598. The Nature of Biological Science. Assumptions, methods and limitations of science. Historical roots of biology and the development of major concepts. Communication in biology and society. Prereq.: Senior standing. 3 Cr. F ALT.

COURSES FOR GRADUATE STUDENTS ONLY

601. Readings in Biology. 1-4 Cr. F, W, S, SUM.

602. Modern Biological Concepts. General education course in which modern concepts in physiology, genetics, and ecology are developed through selected laboratory experiences, reading, and discussion. Not open to biology majors or minors. 3 Cr. W ALT, SUM ALT.

603. Research in Biology. 1-4 Cr. (May be repeated once.) F, W, S, SUM.

630. Seminar in Biology. (Topical.) 1-4 Cr. (May be repeated to a maximum of 9 Cr.) F, W, S.

639. Advanced Parasitology. Selected topics in parasitology with emphasis on the interrelationships between the parasite and its host. Lab. Prereq.: 439-539. 4 Cr. F ALT.

- 641. Advanced Entomology.** Identification of selected insect groups; topics of insect taxonomy, physiology and behavior. Lab. Prereq.: 341 and a summer insect collection. 4 Cr. W ALT.
- 644. Advanced Virology.** Structure and properties of viruses, host-virus interactions, major groups, relation to disease, diagnostic techniques. Prereq.: 344, 484-584, CHEM 324 or equivalent. 3 Cr. DEMAND.
- 645. Molecular Biology.** Dynamic aspects of cell structure and function at the molecular level. Lab. Prereq.: CHEM 251. 4 Cr. S ALT.
- 647. Advanced Ornithology.** Functional morphology and breeding biology of birds. Lab. Prereq.: 347. 4 Cr. S ALT.
- 648. Advanced Immunology.** Theoretical basis, techniques, and applications of immunology. Lab. Prereq.: 446-546, 447-547. 4 Cr. S ALT.
- 650. History of Biology.** Origin and development of major ideas of biological thought. 2-4 Cr. W ALT.
- 652. Pollution Biology.** Classification of pollutants and their effects on water and air quality, biota, and socio-economics. Remedial methods. Lab. Prereq.: 448-548. 3 Cr. F ALT.
- 663. Advanced Genetics.** Selected topics with emphasis on gene structure, mutations, complementation and other aspects of modern genetics. Prereq.: 332. 3 Cr. S ALT.
- 666. Biogeography.** Past and present distribution of biotic communities in relation to environmental and historic factors. Prereq.: 441-541. 3 Cr. S ALT.
- 669. Biology of Lakes.** Lectures, readings, and discussions in the biology of lakes. Prereq.: 448-548, 468-568. 3 Cr. S ALT.
- 670. Biology of Streams.** Lectures, readings, and discussion on the limnology of streams. Prereq.: 438-538, 448-548, 468-568 recommended. 3 Cr. F ALT.
- 696. Research Reporting.** Research analysis and reporting. Students will be graded on an S/U basis. 3 Cr. W.
- 699. Master's Thesis.** 6-9 Cr. F, W, S, SUM.

CHEMISTRY (CHEM)

Chairperson: John Carpenter

Graduate Faculty: Carpenter, Arndts, Dendinger, J. Erickson, James, Kennedy, Laakso, Magnus, McMullen, Nickles, Sorensen

MASTER OF SCIENCE — Physical Science

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed an undergraduate major in either chemistry, physics or earth science with some work in the other fields and in mathematics. In some cases the applicant may be required to complete additional undergraduate work even though the student may have completed a major in one of the three fields.

Students pursuing a Master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 45 Cr.; Plan B, 48 Cr.

- I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3-6 Cr.
 ED 615 Introduction to Research, 3 Cr. (or approved alternate)
 CHEM 699 Master's Thesis, 6-9 Cr. (Plan A only)
- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.
 Selected course work in chemistry, physics or earth science.
 Consent of adviser.
- III. Professional Education: Min., Plan A or B, 9 Cr.
 Consent of Secondary Education Adviser.
- IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

For courses with a laboratory, the number of lecture hours (listed first) and laboratory hours per week are given in parentheses following the course title.

512. Radiochemistry. Concepts of nuclear stability and structure; decay systematics and energetics; interactions of radiation with matter; applications to chemical problems. Basic calculus desirable. Prereq.: 212 or 213. 2 Cr. F, SUM.

513. Radiochemistry Laboratory. (0, 4) Detection, characterization, and measurement of radiation; chemical operations and the application of radioisotopes to chemical and biochemical problems. Prereq. or concurrent registration: 512. 2 Cr. F, SUM.

525, 526, 527. Physical Chemistry. Application of fundamental laws and theoretical principles to atomic and molecular structure, gases, liquids, solids, solutions, phase equilibrium, chemical reactions (equilibrium and kinetics), and electrochemical processes; to understand the macroscopic in terms of molecular behavior. Prereq.: 325, PHYS 212, 213, MATH 243. 3 Cr. per quarter. 525-F, 526-W, 527-S.

528, 529. Physical Chemistry Laboratory. (0, 4) These are laboratory courses to complement the physical chemistry lecture sequence. A quantitative measurement of properties and phenomena of chemical interest and their interpretation by use of chemical principles. Prereq.: 525, 526 or concurrent registration. 2 Cr. per quarter. 528-W, 529-S.

534. Advanced Inorganic Chemistry I. (3, 2) Development of the concepts of inorganic chemistry; electronic structures of atoms; crystal structure; chemical bonding including molecular orbital theory; coordination compounds. Lab. Prereq.: or concurrent registration: 525, or consent of instructor. 4 Cr. F.

535. Advanced Inorganic Chemistry II. Application of the concepts of inorganic chemistry as applied to chemical elements and compounds. Further work in coordination chemistry including the ligand field theory. Prereq.: 534. 4 Cr. W.

540. Instrumental Analysis. (2, 6) Major instrumental methods of chemical analysis including spectroscopic, electrometric, and chromatographic methods. Lab. Prereq.: 525, 526 or concurrent registration. 4 Cr. W.

550. Qualitative Organic Analysis. (1, 12) Identification of several simple and mixed organic compounds by physical and organic qualitative methods. Prereq.: 393, 540. 4 Cr. S.

553. Biochemistry. (3, 4) Dynamic aspects of the intermediary metabolism of carbohydrates, lipids, proteins, and nucleic acids; energy production and utilization of living systems. Lab. Prereq.: 393, 527, or consent of instructor. 4 Cr. F ALT.

556. Methods and Materials for Teaching Sciences. Modern approaches to teaching science in junior or senior high school. Integrated Lab. 2 Cr. F, W.

558. Methods and Materials for Teaching Chemistry. Modern approaches to teaching of high school chemistry in classroom and laboratory. Integrated Lab. Prereq.: 556 or concurrent registration. 2 Cr. W.

560-569. Selected Topics in Chemistry. Non-sequence courses designed for intensive study of a special topic. Topic will be announced in class schedule. Departmental approval required for enrollment. 1-4 Cr. DEMAND.

572. Advanced Organic Chemistry. Topics such as condensations, rearrangements, conservation of orbital symmetry, polymers, benzenoid and non-benzenoid aromaticity. Prereq.: 393, 534 or consent of instructor. 4 Cr. S ALT.

581. Chemical Thermodynamics. Concepts of both classical and modern thermodynamics applied to problems encountered in Chemistry. Prereq.: 525, 526. 4 Cr. S ALT.

590. Seminar. Lectures, readings, discussions on selected topics. May be repeated. 1 credit per quarter to a Max. of 4 Cr. F, W, S.

COURSES FOR GRADUATE STUDENTS ONLY

601. Major Developments in Physical Sciences. General course where selected science developments and their effect on society are discussed. Not open to students with majors or minors in physical science. 3 Cr. DEMAND.

610. History of Chemistry. The origin and historical development of chemical concepts. Prereq.: Chemistry background or consent of instructor. 3 Cr. DEMAND.

699. Master's Thesis. 6-9 Cr. F, W, S, SUM.

EARTH SCIENCES (ESCI)

Chairperson: Garry Anderson

Graduate Faculty: G. Anderson, C. Nelson, Shurr, Soroka, Watkins

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

520. Seminar. Lectures, readings, discussion on selected topics. 1-4 Cr. May be repeated. Max. 9 Cr. F, W, S.

556. General Methods for Teaching Science. Modern approaches to teaching science in junior or senior high school. Lab. 2 Cr. DEMAND.

560. Methods and Materials for Teaching Earth Sciences. Modern approaches to teaching junior high school science in classroom and laboratory, including work on the major junior high science curricula with emphasis on the Earth Science curriculum projects. Lab. 2 Cr. W.

577. Earth Sciences Institute. Selected topics in earth sciences for experienced teachers. 3-6 Cr. DEMAND.

ECONOMICS (ECON)

Chairperson: Harold Lofgreen

Graduate Faculty: Lofgreen, Bruhn, Gleisner, Greenley, Luksetich, Redd

A graduate program in economics is available, Master of Science: Social Science (economics). See degree requirements under Social Science, page 113.

MASTER OF SCIENCE — Social Science (Economic Education)

This program is designed for K-12 teachers and supervisors who desire to improve their basic understanding of economics in order to effectively initiate, implement, and evaluate systematic programs in economic education in elementary and secondary schools. The program is designed to provide a basic background for those who have had little or no formal training in economic education. Each specific program will be developed by the appropriate advisers taking into account the individual's background and teaching/supervisory objectives.

Plan B, Min., 48 Cr.

I. Research

- | | | |
|----|-----|-----------------------------------|
| ED | 614 | Interpretation of Research, 3 Cr. |
| | or | |
| ED | 615 | Introduction to Research, 3 Cr. |

II. Major: Min., 24 Cr.

A. Required:

- | | | |
|---|-----|---|
| ECON | 610 | Economic Education, 4 Cr. |
| ECON | 631 | Seminar in Economic Education, 3 Cr. |
| For Secondary School Personnel, in addition to above: | | |
| SST | 640 | Recent Trends in Teaching Social Studies in Secondary School, 3 Cr. |

102 / ECONOMICS

- B. Elective Courses in Economics, Min., 12 Cr.
Courses selected must be approved by major adviser.
- C. General Electives, Max., 7 Cr.
Any two graduate level courses from the following:
BEOA 516, 601, 607
IND 601, and/or any graduate offering from the following departments (with prior consent of major adviser):
GEOG, ESCI, HIST, AMST, SST, SSPA, POL, SOC, ANTH.
- III. Professional Education: Min., 18 Cr.
 - A. Elementary School Level Personnel
Prescribed:
ED AD 696 Elementary School Supervision, 3 Cr.
ED 613 Practicum in Curriculum Construction and Development, 3 Cr.
 - B. Secondary School Level Personnel
Prescribed:
SEED 675 Improvement of Secondary School Instruction, 3 Cr.
ED 613 Practicum in Curriculum Construction and Development, 3 Cr.
 - C. All Programs
Prescribed:
ED AD 601 Research and Theory in Educational Administration, 3 Cr.
Electives in Professional Education: Min., 9 Cr.
The courses to complete this requirement are to be approved by appropriate professional education adviser. The combination of required and elective courses must include at least one course in Foundations of Education, one course in Curriculum Development, and one course in Instructional Methodology.
- IV. General Electives: Min., 3 Cr.
(All programs other than secondary major, consent of adviser.)

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

- 551. Resource and Environmental Economics.** Analysis of problems of natural resource allocations, including air and water quality control. Economic efficiency, externalities, and long run implications. Prereq.: 273, 274, or consent of instructor. 4 Cr. S ALT, DEMAND.
- 560. Public Finance.** The role of government in the economy with emphasis upon analysis of public revenues and expenditures, tax structure, intergovernmental fiscal relations, fiscal policy and public debt measurement. 4 Cr. W.
- 561. Public Economics: State and Local.** The economics of state and local government. Public projects, tax and revenue structures, and intergovernmental relations. Some emphasis on Minnesota. Prereq.: 273, 274, or consent of instructor. 4 Cr. S.
- 565. Urban and Regional Economics.** Analysis of regions, including the city as a regional center. Emphasis on regional development, location theory, central place theory, financing. Some emphasis on Central Minnesota. Prereq.: 273, 274. 4 Cr. F, DEMAND.
- 570. Business Cycles and Forecasting.** Factors causing fluctuations in business activity and national income; proposed methods of stabilization; business forecasting techniques. Prereq.: 273, 274. 4 Cr. DEMAND.
- 571. Money and Banking.** A study of the monetary and banking system of the United States; bank credit, the banking system, Federal Reserve System, central bank policy, and relationship between bank credit, money and price levels. Prereq.: 273, 274. 4 Cr. F, W, S, SUM.
- 572. Social Control of Business.** A course in the economic theory and practice of government regulation and control of business activity in the United States. Prereq.: 273, 274. 4 Cr. F.
- 573. Labor Economics.** Labor as a factor of production; growth of collective bargaining and labor legislation, with their attendant effects upon society. Prereq.: 273, 274. 4 Cr. W.

574. International Economics. International economic relationships; commercial and financial policies; tariffs, exchange controls, international monetary standards, and international settlements. Prereq.: 273, 274. 4 Cr. W ALT.

575. National Income and Employment. Study of flow of expenditures and income and their impact upon national income and price levels, with appropriate consideration of possible stabilization controls. Prereq.: 273, 274. 4 Cr. F, W, S, SUM.

576. Price and Distribution Theory. Nature and scope of economic processes in free enterprise system; determination of prices, output and factor services in different market structures. Prereq.: 273, 274. 4 Cr. F, S.

578. History of Economic Thought. Development of economic thought and analysis from Adam Smith to present. Prereq.: 273, 274. 4 Cr. F, S.

579. Manpower Policy and Analysis. An examination of the factors which influence the quantity and quality of labor and of the economic aspects of government policy toward labor as an individual entity. Prereq.: 273, 274. 4 Cr. W ALT.

580. Seminar in Area Economic Studies. (Topical.) An examination of the economy and the current economic problems of selected regions, areas, or countries of the world. Prereq.: Departmental approval. 1-4 Cr. May be repeated with different topic. Max. of 9 Cr. DEMAND.

581. Seminar:_____. Selected topics in economic theory. Prereq.: Departmental approval. 1-4 Cr. May be repeated with different topic. Max. of 9 Cr. DEMAND.

583. Contemporary Economic Problems. (Topical.) Consideration and possible solutions of problems arising from growth and development of modern institutions under the free enterprise system. Prereq.: Departmental approval. 1-4 Cr. May be repeated with different topic. Max. of 9 Cr. DEMAND.

587. Economic Growth and Stability. Behavior of the aggregate output and income over time. Models of long-run growth and short-run cycles are utilized to examine policies and programs to maintain economic stability. Prereq.: 475-575 or 470-570. 4 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

601. Readings in Economics. (Topical.) Guided study of individual investigation of special economic problems and/or theoretical topics. Credits and meetings by arrangement. 1-4 Cr. May be repeated with different topic. Max. of 9 Cr. DEMAND.

602. Readings in Economic Education. (Topical.) Guided study of individual investigation of the literature in the field and/or its applications. Credits and meetings by arrangement. 1-4 Cr. May be repeated with different topic. Max. of 9 Cr. DEMAND.

610. Economic Education. Examination of economic concepts found in the public school curricula, the economic theories necessary to understand these concepts, and development of models for examination of public policy issues. 4 Cr. DEMAND.

630. Seminar:_____. Research and seminar presentation on selected economic topics. May be repeated. Prereq.: Consent of department. 1-4 Cr. Max. of 9 Cr. DEMAND.

631. Seminar in Economic Education. Research and seminar presentation of topics in economic education. May be repeated. Prereq.: Consent of department. 3 Cr. DEMAND.

644. Internship. Advanced approval of the department required. 8 Cr. DEMAND.

645. Economic Problems of Underdeveloped Countries. A study of the social and economic development, and of the leading issues in economic growth theory. Selected cases of underdeveloped countries will be examined in detail. 4 Cr. DEMAND.

664. Methods of Regional Economic Analysis. The methodology of regional analysis, including linear programming, simulation, economic base studies, input-output analysis, benefit-cost analysis, projection, estimation, and forecasting. Prereq.: 465-565. 4 Cr. DEMAND.

665. Seminar in Regional Economics. Application of regional economic methods and analysis to regional planning problems. Emphasis on regional development planning, economic growth, and funding. Prereq.: 664. 4 Cr. DEMAND.

677. Business Economics. Economic analysis as an aid in business management and control. 4 Cr. DEMAND.

679. Comparative Economics. An analysis of the functioning of different economic systems. Comparison of the principles of operation using theoretical systems as a framework for comparison of the social and economic objectives. 4 Cr. DEMAND.

ENGLISH (ENGL)

Chairperson: James Gottshall

Graduate Faculty: Gottshall, J. B. Anderson, Bovee, Cairns, Coard, A. E. Falk, Lawson, Leja, Lundquist, Meissner, Melton (Director, Graduate Study in English), Otto, Summers, M. Thompson, R. Thompson, Tosh, E. VanPelt

MASTER OF ARTS

The M.A. degree in English is the standard degree for those planning a program leading to the Ph.D. degree, for junior college teaching, and for general cultural enrichment.

For unconditional admittance to the M.A. degree, the applicant must have completed at the undergraduate level not less than 36 quarter hours of credit in English, exclusive of general education courses, and must meet the admission standards as required by the Office of Graduate Studies.

Before the degree is granted, the student must demonstrate competency in a foreign language acceptable to the English Department. This requirement may be met by successful completion of an examination, by successful completion of a graduate reading course in a foreign language, or by the completion of 24 quarter credits of work in a foreign language. Successful completion of two courses in linguistics may also be accepted as fulfilling this requirement.

A minimum of 15 credits must be earned in English courses limited to graduate students.

Plan A only, 48 Cr.

- I. Credits in English: Min., 38 Cr.
 - A. Prescribed: ENGL 616, Literary Research (or equivalent course). 4 Cr.
ENGL 699 Master's Thesis. 6 Cr.
 - B. Electives: A Min. of 28 Cr. must be elected in ENGL.
- II. Cognate courses: A Max. of 10 Cr. may be earned in approved cognate courses.

MASTER OF SCIENCE

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed at the undergraduate level a minimum of 36 quarter credits in English exclusive of general education courses and must meet the admission standards as required by the Graduate Studies Office.

A minimum of 15 credits must be earned in English courses limited to graduate students.

Plan A, 46 Cr.; Plan B, 49 Cr.

- I. Research: Plan A, 10 Cr.; Plan B, 4 Cr.
 - ENGL 616 Literary Research, 4 Cr. (or equivalent course)
 - ENGL 699 Master's Thesis, 6 Cr. (Plan A only)
- II. Major: Min., Plan A, 20 Cr.; Plan B, 24 Cr.
Credits to be selected with major adviser.
- III. Professional Education: Min., Plan A or B, 9 Cr.
Credits to be selected with approval of Professional Education Adviser.
- IV. Electives: Plan A, 7 Cr.; Plan B, 12 Cr.
Credits to be selected with the major adviser from related fields, General Studies Core, Introduction to Graduate Statistics, Interpretation of Research, or additional courses in the major.

- V. Prior to graduation, students in Plan B must pass a comprehensive examination given by the English Department.

Plan C, 54 Cr.

- I. Research: Min., 3 Cr.
ENGL 616 Literary Research, 4 Cr. (or equivalent course)
- II. Major: 24 Cr.
Selected course work in English to total 24 credits, and not to include more than one course by independent study.
- III. Educational Foundations: 6 Cr.
Students will select from the list developed by the College of Education.
- IV. Educational Applications and Implementations: 15 Cr.
Selected work, with the English adviser's approval, from methods workshops, practicums, internships, school curriculum development, special projects related to the teaching assignment, and from ENGL 652, 653, 654, 690-694 (Selected Topics in English) and other major courses and courses in related fields, as offered and as appropriate to the student's situation.
- V. General Electives: Min., 6 Cr.
Selected work from the major or related fields, with the approval of the English adviser.
- VI. Candidates are required to complete successfully a final examination, oral or written, covering the materials included in a professional folio to be developed as sanctioned by the adviser. The examination will be conducted by two members of the English Department and one member from outside the department.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

521. Literary Theory and Criticism. The concepts which apply to such problems as the writer's creative process, the various purposes of literary art, form, and technique, and the responses that literature elicits. 3 Cr. F, S, SUM.

533. Computers and Language. Introduction to computer applications in language data analysis and processing, presenting the fundamentals of SNOBOL. Prereq.: 232 or MATH 169 or consent of instructor. 4 Cr. ALT.

534. English Grammars. The application of modern linguistics to the description of English grammar, including an introduction to the theories and methods of structural and generative-transformational grammars. 4 Cr. DEMAND.

535. History of the English Language. The development of English sounds, grammatical structures, and vocabulary from Old English to Modern English; the reading and analysis of selected texts. Prereq.: 232. 3 Cr. S.

536. American English. Contemporary spoken American English social and regional dialects and their relationship to the written language. 4 Cr. DEMAND.

537. Advanced Practices in Creative Writing. Study and practice in writing of poetry, plays, and fiction of publishable quality at the advanced undergraduate and graduate level. Prereq.: 332, 333, or 334, or permission of the instructor. 4 Cr. S, W.

539. Topics in Linguistics. One or more topics of current importance in linguistics. 4 Cr. DEMAND.

541. Milton. The minor poetry, *Comus*, *Paradise Lost*, *Paradise Regained*, *Samson Agonistes*, and *Areopagitica*. 4 Cr. S.

545. The Nineteenth-Century English Novel. Austen, Scott, Mary Shelley, Dickens, Thackeray, Meredith, Butler, Eliot, Hardy, and others. 4 Cr. ALT.

546. The American Novel. The development of the American novel. 4 Cr. ALT.

547. Seminar in Literary Themes. Selected recurrent themes in literature, such as science fiction, the gothic, minority literature, death and dying. Variable content. May be repeated. 4 Cr. Max. 9 Cr. DEMAND.

548. Seminar in Literary Forms. The forms of literature, such as types of satire, comedy, fantasy. Variable content. May be repeated. 4 Cr. Max. 9 Cr. DEMAND.

551. Women in Literature. Images of women and their life experiences as revealed in literature. Emphasis on portrayals by women writers of conflicts between role definition by society and women's struggle for self-realization. 4 Cr. ALT.

555. The Contemporary Mass Media as Literature. The creative productions of both print and electronic mass media today with a focus on the nature, potential, and limitations of the different artistic and technical forms. 4 Cr. DEMAND.

569. Literature and American Minorities. A study of the contributions of American minorities: Black Americans, Native Americans, Asian Americans, and Mexican Americans, to American Literature through themes, content, and forms. Content and focus to vary. 4 Cr. F.

585. The Eighteenth-Century English Novel. Defoe, Richardson, Fielding, Smollett, Sterne, and related authors. 4 Cr. DEMAND.

590. European Writers of the Twentieth Century. 4 Cr. DEMAND.

591. Drama I. The Beginnings to Ibsen. World drama, its origin and genesis. Primitive drama. Classical Greek and Roman, Oriental, Medieval, Elizabethan, Neo-classic French, Restoration, Eighteenth Century to 1875. 4 Cr. F.

592. Drama II. Modern drama from Ibsen to World War II. Literature and production techniques of the modern theatre. 4 Cr. W.

593. Drama III. Contemporary drama. Trends in the literature and production techniques of today's theatre. 4 Cr. S.

594. American Writers of the Twentieth Century. 4 Cr. DEMAND.

597. British Writers of the Twentieth Century. 4 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

616. Literary Research. Bibliography, methods, and tools in the art of literary research. 4 Cr. ALT.

622. History of Literary Theory and Criticism. Major texts from ancient times to the present. Designed to provide the student with a background of critical history. 4 Cr. DEMAND.

637. Old English. The language and literature of the Anglo-Saxon period. 4 Cr. DEMAND.

643. Shakespeare Studies. The text and sources; theories; and history of representative comedies, tragedies, and histories. 4 Cr. DEMAND.

652. Language Arts Problems. The latest trends in language arts teaching and course organization; application to specific problems of class members, with emphasis on individual research. Prereq.: 452 or equivalent. 4 Cr. DEMAND.

653. Seminar in Literature for Adolescents. An analysis of one or more approaches to the study of literature in the secondary school and of reading materials appropriate to these approaches. 4 Cr. DEMAND.

654. Teaching Composition in the Secondary School. Study of current theory and practice in composition teaching in the junior and senior high schools. Development of practical programs to fit teaching needs of individual students. 4 Cr. DEMAND.

656. The Teaching of College English. The planning and preparation of materials for college teaching. Involves observation in the college classroom together with student teaching. Research project on the teaching of college English required. 3 Cr. DEMAND.

657. Internship in the Teaching of College English (Literature). Individual instruction in the theory and techniques of effective college classroom teaching of literature, and practical experience in solving the problems of actual classroom instruction under the direct supervision of an experienced teacher. Research project on the teaching of college English required. Admission by consent of the Chairperson. 2 Cr. DEMAND.

663. Seminar in Early American Literature. 4 Cr. DEMAND.

664. Seminar in the American Literature of the Early Nineteenth Century. 4 Cr. DEMAND.

665. Seminar in the American Literature of the Later Nineteenth Century. 4 Cr. DEMAND.

666. **Seminar in American Literature of the Twentieth Century through World War II.** 4 Cr. DEMAND.
667. **Seminar in American Literature of the Twentieth Century since World War II.** A study of significant American authors from World War II to the present with a selection from such writers as Bellow, Baldwin, Lowell, Styron, and Roethke. 4 Cr. DEMAND.
670. **The Study of Middle English Literature.** Selected aspects of English literature from the twelfth to the sixteenth centuries. 4 Cr. DEMAND.
671. **Renaissance Drama.** Representative Tudor and Jacobean dramatists: Kyd, Marlowe, Dekker, Jonson, Webster, Heywood, and related authors. 4 Cr. DEMAND.
675. **English Writers of the Seventeenth Century.** The writings, background, and criticism of one or more of the principal writers of the seventeenth century, such as Bacon, Bunyan, Burton, Donne, Herbert, Jonson, Dryden, and Milton. 4 Cr. DEMAND.
679. **Seminar in Restoration Literature.** Selected Restoration authors, writings, and movements from 1660-1710. 4 Cr. DEMAND.
684. **English Writers of the Eighteenth Century.** The writings, background, and criticism of one or more of the principal writers of the eighteenth century. 4 Cr. DEMAND.
687. **Seminar in Nineteenth-Century British Literature.** A selected aspect of nineteenth-century British literature. The content will vary. 4 Cr. DEMAND.
688. **Seminar in World Literature.** Selected readings from the works of one or more major world figures. 4 Cr. DEMAND.
689. **Seminar in Twentieth-Century British Literature.** Selected aspects of twentieth-century British literature. The content will vary. 4 Cr. DEMAND.
696. **Literary Heritage.** Masterpieces from different cultural origins and different ages. A graduate general education course not open to English majors. 3 Cr. DEMAND.
697. **Contemporary Thought in Literature.** A study of the philosophical and cultural content of selected contemporary writings. 4 Cr. DEMAND.
698. **Creative Work.** 4-6 Cr. F, W, S, SUM.
699. **Master's Thesis.** 4-6 Cr. F, W, S, SUM.

FOREIGN LANGUAGES AND LITERATURE

Chairperson: Barbara J. Bloomer
Graduate Faculty: Langen, Retiz

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

French 511. Advanced Studies in French Literature. Seminar for intensive study of a particular movement, author, or work as announced in advance. To be taught in French. Prereq.: nine credits of literature or consent of instructor. 1-4 Cr. each registration; Max. of 12 Cr. DEMAND.

German 511. Advanced Studies in German Literature. Seminar for intensive study of a particular movement, author, or work as announced in advance. To be taught in German. Prereq.: nine credits of literature or consent of instructor. 1-4 Cr. each registration; Max. of 12 Cr. DEMAND.

Spanish 511. Advanced Studies in Spanish and Spanish-American Literature. Study of a particular Spanish or Spanish-American author or of specific topics in Spanish and/or Spanish-American literature. To be taught in Spanish. 1-4 Cr. each registration; Max. of 12 Cr. DEMAND.

French 514. Advanced Studies in French Literature in Translation. Seminar for intensive study of a particular movement, author, or work as announced in advance. Prereq.: nine credits of literature or consent of instructor. 1-4 Cr. each registration; Max. of 12 Cr. DEMAND.

German 514. Advanced Studies in German Literature in Translation. Seminar for intensive study of a particular movement, author, or work as announced in advance. Prereq.: nine credits of literature or consent of instructor. 1-4 Cr. each registration; Max. of 12 Cr. DEMAND.

Spanish 514. Studies in Spanish Literature in Translation. Study of a particular Spanish or Spanish-American author or of specific topics in Spanish and/or Spanish-American literature. 1-4 Cr. each registration; Max. of 12 Cr. DEMAND.

French 537. Literature of the "Tiers Monde". Studies of leading writers in former French Colonies. 3 Cr. DEMAND.

French 560. Study Abroad. Prereq.: FREN 311, 312, and approval of Program Director. 3-6 Cr. DEMAND.

German 560. Study Abroad. Prereq.: GERM 311-313, and approval of Program Director. 3-6 Cr. DEMAND.

Spanish 560. Study Abroad. Prereq.: SPAN 311-313, and approval of Program Director. 3-6 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

French 601. French for Graduate Students.

German 601. German for Graduate Students.

Spanish 601. Spanish for Graduate Students.

Russian 601. Russian for Graduate Students.

Intensive reading and translation of a variety of texts designed solely to impart a basic reading knowledge of a foreign language (French, German, Spanish, Russian). At the end of one quarter, the student is given the respective reading examination. Successfully passing this examination fulfills the Graduate School requirement of a reading knowledge of a foreign language. No prereq. Offered according to need. **The courses cannot be used to reduce credit requirements for a graduate degree.** 3 Cr. DEMAND.

French 654. Advanced Methodology in the Teaching of French.

German 654. Advanced Methodology in the Teaching of German.

Russian 654. Advanced Methodology in the Teaching of Russian.

Spanish 654. Advanced Methodology in the Teaching of Spanish.

A seminar dealing with problems of teaching foreign languages at the secondary level and with an examination of recent trends in methodology. Discussion of the course content in English and in the foreign languages. Offered according to need. 1-4 Cr. DEMAND.

GEOGRAPHY (GEOG)

Chairperson: Henry Coppock

Graduate Faculty: Coppock, Tideman

MASTER OF SCIENCE

An applicant for this degree must have completed at least an undergraduate minor in geography in order to choose it as a major at the graduate level. In some cases, the applicants may be required to complete additional undergraduate work even though they may have completed a minor or major.

Students pursuing a Master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 45 Cr.; Plan B, 48 Cr.; Plan C, 54 Cr.

- I. Research: Min., Plan A, 9-15 Cr.; Plan B or C, 3 Cr.
 ED 614 Interpretation of Research, 3 Cr. (Plan C only)
 or
 ED 615 Introduction to Research, 3 Cr.
 GEOG 699 Master's Thesis, 6-9 Cr. (Plan A only)
- II. Major: Min., Plan A, 18 Cr.; Plan B or C, 24 Cr.
 Advanced study in subject matter, methods, materials, and curriculum.
- III. Professional Education: Min., Plans A or B, 9 Cr.
 Credits to be chosen with the approval of the Professional Education Adviser.
- IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.; Plan C, 6 Cr.
- V. Educational Foundations: Min., 6 Cr. (Plan C only)
 Students will select from a list developed by the School of Education and approved by the Graduate Council.
- VI. Educational Applications and Implementations: Min., 15 Cr. (Plan C only)
 Workshops, practicums, internships, school curriculum development, special projects related to the teaching assignment. (Approval of major adviser.)

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

- 505. Cartography.** Map making and construction; work with map making tools. Topical. 4 Cr. F, W, S, SUM.
- 506. Intermediate Cartography.** Application of basic cartographic skills to advanced map design and construction. Prereq.: 405-505 or consent of instructor. Topical. 4 Cr. W, SUM.
- 507. Advanced Cartography.** Advanced map construction. Application of complex cartographic techniques to map making. Emphasis placed upon cartographic representation of statistical data. Prereq.: 405-505 or consent of instructor. Topical. 4 Cr. S, SUM.
- 554. Regional Planning.** Examination of the attitudes, physical basis, and solutions to regional problems that are beyond being simply "rural" or "urban" in nature. Topical. Prereq.: Consent of instructor. 4 Cr. S.
- 557. Historic Preservation Planning.** A systematic view of historic preservation planning in the United States. Attention is given to district and neighborhood preservation, as well as historic sites and buildings. Topical. 4 Cr. S, SUM.
- 559. Outdoor Recreation Land Use.** Case studies and field investigations of outdoor recreation land use and related activities. Topical. Prereq.: 279 or consent of instructor. 4 Cr. F, S.
- 572. Geomorphology.** The configuration of the earth's surface and physical processes which have brought the surface to its present condition. Topical. 4 Cr. S, SUM.
- 574. Meteorology.** Atmospheric phenomena; familiarity with sensing and recording instruments; the analysis of weather maps and weather forecasting. Topical. 4 Cr. F.
- 575. Climatology and the World's Climates.** Inspection and analysis of climatological data with respect to climatic types and their corresponding climatic controls. Emphasis is given to spatial distribution. Topical. 4 Cr. W.
- 580. Agricultural Geography.** World areal differences in crop, livestock, and technological patterns. Special emphasis on farming in the United States. Topical. 4 Cr. F.
- 586. Political Geography.** Geographical strengths and weaknesses of the Great Powers which influence changes in the world today. Topical. 4 Cr. W.
- 590. Urban Geography.** The development of Spatial patterns and relationships within and among urban centers and non-urban areas. Topical. 4 Cr. S.
- 592. Water Resources.** Development and management of water resources: problems of supply, distribution, quality, pollution, floods and variability; case-studies in selected regions, brief background in hydrological processes. Topical. 4 Cr. S.



COURSES FOR GRADUATE STUDENTS ONLY

601. Research or Readings in Topical Geography. A seminar or conference course for students wishing to investigate some phase of this subject. Credits and meetings by arrangement. Topical. 1-4 Cr. F.

602. Research or Readings in Regional Geography. A seminar or conference course for students wishing to investigate the geography of a particular region of the world. Credits and meetings by arrangement. Regional. 1-4 Cr. W.

630. Seminar:_____. Research and seminar presentation on a selected geographic topic. Variable credit. May be repeated. Prereq.: Consent of instructor. Regional or Topical. 1-4 Cr. Max. of 9 Cr. DEMAND.

644. Internship: Practical Geography. Requires consent of the department and is limited to graduate students only. 1-8 Cr. DEMAND.

650. Land Use Analysis: Examination of the nature, use, and conservation of the land. Stress is placed on land use planning techniques. Permission of instructor. Topical. 4 Cr. DEMAND.

654. Urban, Regional and Resource Planning. Urban and regional planning field; concepts, philosophies and theories of planning; review of case-studies selected to illustrate different frameworks of urban, regional and resource planning. Topical. 4 Cr. DEMAND.

699. Master's Thesis. 3-9 Cr. F, W, S, SUM.

HISTORY (HIST)

Chairperson: David Overy

Graduate Faculty: Overy, Acrea, Gambill, Gower, R. Lewis, Massmann, D. Peterson, Pluth, Quirin, Sammarrai, Vaughter

Department policy statements on evaluation procedures, starred papers, and reading lists are available in the History Office. Each student's progress is to be evaluated after the completion of 12 graduate credits. Students are to contact their adviser in the first enrollment period following completion of 12 graduate credits. Students are encouraged to obtain pertinent material no later than the first quarter of enrollment.

MASTER OF ARTS

An applicant for admission to this program must have earned a minimum of 24 credits in history beyond General Education requirements and the undergraduate honor point ratio should be 2.8 or above. Others may be admitted conditionally. In some cases, the applicant may be required to complete additional undergraduate work even though a major or minor may have been completed.

Reading knowledge of a foreign language is not required but it may be needed. Many graduate schools offering doctorate programs in history prefer applicants who have completed a Master's with a thesis.

Students pursuing a Master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A: Min., 45 Cr.

I. Credits in History (36-39 Cr.).

A. Prescribed:

1. 699, Master's Thesis, 9 Cr.
2. 578, Historical Criticism and Writing, 3 Cr.*
3. 572, 573, or 574, Non-Western, European, and /or American Historiography, 3-9 Cr.*

B. Electives: 19-24 Cr. in History.

II. Cognate Courses: 6-9 Cr. in courses approved by adviser.

A student completing the Plan A program will be required to pass a Final Oral Examination based on the Thesis submitted to the Final Evaluation Committee.

Plan B: Min., 48 Cr.

I. Credits in History (30-36 Cr.).

A. Prescribed:

1. 578, Historical Criticism and Writing, 3 Cr.*
2. 572, 573, or 574, Non-Western, European, and/or American Historiography, 3-9 Cr.*
3. Three starred papers written in conjunction with approved courses.

B. Elective: 22-30 Cr. in History.

II. Cognate Courses: 12-18 Cr. in courses approved by adviser.

A student completing the Plan B program will be required to pass a Final Oral Examination based on the starred papers submitted to the Final Evaluation Committee.

At the option of the department, candidates may also be required to complete a Final Written Examination.

* These courses may be waived if the student has fulfilled these requirements as part of an undergraduate program.

MASTER OF SCIENCE

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed at least an undergraduate minor in History in order to select it as a graduate major. In some cases, the applicant may be required to complete additional undergraduate work even though a major or minor may have been completed.

A minimum of 15 credits must be earned in the major in which enrollment is limited to graduate students.

Plan A, 45 Cr.; Plan B, 48 Cr.

I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3-6 Cr.

HIST 578 Historical Criticism and Writing, 3 Cr.

HIST 699 Master's Thesis, 6-9 Cr. (Plan A only)

II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.

Credits to be selected with major adviser.

III. Professional Education: Min., Plan A or B, 9 Cr.

Credits to be selected with approval of Professional Education Adviser.

IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.

A student completing Plan A will be required to pass a Final Oral Examination based on the thesis submitted to the Final Evaluation Committee.

A student completing Plan B will be required to take the Written Comprehensive Examination as a final evaluation. ***It is strongly advised that students take a Historiography Course or Courses (History 572, 573, 574) appropriate to their area(s) of concentration.***

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

545. United States Military History. Military problems and accomplishments from 1775 to the present. 4 Cr. DEMAND.

548. U.S. Social and Intellectual to 1865. Puritanism, revivalism, early American political thought, economic values, agrarianism, reform movements, literary traditions, individualism, are among topics discussed. 4 Cr. DEMAND.

549. U.S. Social and Intellectual Since 1865. "Rugged individualism," pragmatism, reform movements, evolution, racism, liberalism, conservatism, radicalism, are among the topics discussed. 4 Cr. DEMAND.

555. U.S. Foreign Relations, 1775-1898. American foreign policy; neutral rights; Monroe Doctrine; influence of sectionalism on foreign relations; Civil War and its effects; overseas expansion. 4 Cr. DEMAND.

556. U.S. Foreign Relations Since 1898. The U.S. as a world power; diplomatic policies in two world wars and their aftermath. 4 Cr. DEMAND.

558. The American West. Topical and chronological consideration of western land policy, territorial government; Indian policy, economic development. 4 Cr. DEMAND.

563. U.S.-Latin American Relations. General trends with emphasis on specific relations with selected Latin American countries or regions. 4 Cr. DEMAND.

572. European Historiography Since 1750. Readings in and interpretations of important European historians. 3 Cr. DEMAND.

573. American Historiography. Readings and discussion of historians and historical interpretation from Colonial America to the present. 3 Cr. DEMAND.

574. African or Asian Historiography. Problems, research, methods, writing and interpretation in selected African and Asian topics. 3 Cr. DEMAND.

578. Historical Criticism and Writing. Problems in and methods of historical accuracy and consistency; references, chronology, availability of knowledge, historical "myths," and preparation of research papers and thesis. 3 Cr. DEMAND.

580. Seminar in American History. Intensive reading and research in one area or topic of U.S. or Latin American history. Limited to senior or graduate students. 3 Cr. May be repeated with different topic. Max. 9 Cr. DEMAND.

583. Seminar in European History. Bibliographical study, research, and discussion of a selected topic in European history. Limited to senior or graduate students. 3 Cr. May be repeated with different topic. Max. 9 Cr. DEMAND.

586. Seminar in Africa or Asia. Reading and research on a selected topic. (Africa or Asia). Limited to senior or graduate students. 3 Cr. May be repeated with different topic. Max. 9 Cr. DEMAND.

COURSES FOR GRADUATE STUDENTS ONLY

635. Readings in European History. Guided study through individual investigation of special periods and topics. 3 Cr. May be repeated with different topic. Max. of 9 Cr. DEMAND.

640. Colonial America. Extensive study of themes in development of English colonies from Jamestown to U.S. Independence, e.g., the development of colonial society, culture, economics, politics, ideas, American Revolution. 3 Cr. DEMAND.

641. U.S. 1783-1848. Extensive study of topics such as Constitutional Convention, Federalists, Jeffersonians, Jacksonians, War of 1812, Manifest Destiny, and reform movements. 3 Cr. DEMAND.

642. U.S. 1848-1877. Extensive study of topics such as slavery, the Civil War, and Reconstruction. 3 Cr. DEMAND.

643. U.S. 1877-1920. Extensive study of such themes as agrarian protest, industrialization, growth of urban society, Progressivism, and international involvement. 3 Cr. DEMAND.

644. U.S. 1920-1970s. Extensive study of the Jazz Age, the New Deal, World War II, and post-war U.S. 3 Cr. DEMAND.

651. Readings in American History. Guided study of American history through individual investigation of special periods and topics. 3 Cr. per quarter. May be repeated with different topic. Max. 9 Cr. DEMAND.

662. Seminar in Ancient or Medieval History. Bibliographical study, intensive reading, discussion, research in selected areas or topics of European history to 1450. 3 Cr. per quarter. May be repeated with different topic. Max. 9 Cr. DEMAND.

664. Seminar: European History. Bibliographical study, reading in documents and secondary works, analysis and discussion, research in selected topics or areas. 3 Cr. per quarter. May be repeated with different topic. Max. 9 Cr. DEMAND.

681. Seminar in American History. Intensive reading and research in one area or topic of U.S. or Latin American History. 3 Cr. per quarter. May be repeated with different topic. Max. 9 Cr. DEMAND.

699. Master's Thesis. 3-9 Cr. F, W, S.

INTERDISCIPLINARY STUDIES

Chairperson: Harold Lieberman

Graduate Faculty: Lieberman, Downes, Haniff, Hellwig, Kaye, J. Kelley, Osowski, Rouff, E. Simpson

AMERICAN STUDIES (AMST)

Acting Director: Eleanor Simpson

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

590. Contemporary American Culture. The exploration of one of the variety of cultures in contemporary America through its political, philosophical, literary and artistic creations and its relationship to the overall diversified cultural pattern. A general elective. 4 Cr. W, S.

SOCIAL SCIENCE (SSCI)

Chairperson: Harold Lieberman

MASTER OF SCIENCE

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed at least an undergraduate minor in one of the following: social studies, economics, political science, or sociology. In some cases, the applicant may be required to complete additional undergraduate course work even though a major or minor may have been completed in one of these fields. The student may elect to concentrate in economics, political science, or sociology, with some course work in the other fields, or may elect to emphasize the social sciences more equally.

Students pursuing a Master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 45 Cr.; Plan B, 48 Cr.

I. Research: Min., Plan A, 9-12 Cr.; Plan B, 3 Cr.

ED 615 Introduction to Research, 3 Cr.

SSCI 699 Master's Thesis, 6-9 Cr. (Plan A only)

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- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.
Advanced study in subject matter, methods, materials and curriculum.
- III. Professional Education: Min., Plan A or B, 9 Cr.
Approval of Professional Education Adviser.
- IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

560. Social Science Seminar. Analysis of issues or problems of an interdisciplinary social science nature. A specific topic will be selected each time the course is offered. May be repeated. 1-4 Cr. F, W, S.

570. Area Studies Seminar. Analysis of contemporary social, political, and economic conditions of an area. A specific country or region will be selected each time the course is offered. May be repeated. 1-4 Cr. F, W, S.

576. Black and American: Contemporary Afro-American Thought. An exploration of contemporary Afro-American responses to their condition in American society utilizing concepts and materials from the social sciences. 4 Cr. W ALT.

COURSES FOR GRADUATE STUDENTS ONLY

630. Problems in the Social Sciences. An examination of the methods used and the problems faced in the various social science disciplines. Not open to students with a major or minor in Social Science. 3 Cr. SUM.

699. Master's Thesis. 3-9 Cr. F, W, S, SUM.

SOCIAL STUDIES (SST)

COURSES FOR GRADUATE STUDENTS ONLY

640. Recent Trends in Teaching Social Studies in Secondary School. The secondary school social studies program viewed in light of new methods, curriculum trends, materials, and philosophies. 3 Cr. SUM.

MASS COMMUNICATIONS (COMM)

Chairperson: R. John DeSanto

Graduate Faculty: DeSanto, Habte

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

541. Magazine Article Writing. Varied special types of writing for magazines, newspapers, journals, company publications, other printed media. Market study: adapting style, content to specific publications. 3 Cr. S.

545. Advanced Photojournalism. Lecture, lab in photojournalism; emphasis on the printed media. Theory, practical applications; idea development through finished production. Prereq.: 346 or consent of instructor. 3 Cr. W.

550. Advanced Editing and Makeup. Trends in format, editing, makeup, production of newspapers and magazines; traditional practices and significant departures; impact of the new technology. Prereq.: 350 or consent of instructor. 3 Cr. S.

560. Mass Communications Law. Freedom of the press with emphasis on the First Amendment rights of the printed and broadcast media; libel, censorship and government regulations; major theories of the press. 4 Cr. W, S.

580. Advising School Publications. Role of the faculty adviser; trends, philosophies, problems; theoretical and practical considerations; content of journalism-mass communications curriculum. 4 Cr. F.

581. Teaching Mass Communications. Theories, methods, materials and curriculum developments for teaching mass communications in the secondary schools. 3 Cr. S.

587. Public Relations. Interpreting the school, business firms, other organizations to their various publics; responsibilities, services to the community; an over-all internal and external public relations program. 4 Cr. F, W.

MATHEMATICS (MATH) AND COMPUTER SCIENCE (CSCI)

Chairperson: Howard Bird

Graduate Faculty: Bird, Bahauddin, Brink, K. Carlson, Carr, Dull, R. Earles, Ernst, Grover, J. Johnson, R. Johnson, Lahren, Leitch, Leung, Miller, Nummela, Van Akin

MASTER OF ARTS — Mathematics

The applicant for admittance to the M.A. program must have a bachelor's degree from an accredited college or university, with a major in mathematics and an overall grade point average of at least 2.8 with an average of 3.0 in the major. Students may be admitted provisionally. Final decision on admission will be made by the mathematics graduate faculty after consideration of entrance exam scores, undergraduate record, and letters of recommendation. A minimum of 15 credits must be earned in the major in which enrollment is limited to graduate students.

Plan A, 45 Cr.; Plan B, 48 Cr.

I. Credits in Mathematics.

Plan A. A minimum of 36 quarter hours including a thesis must be earned in mathematics. Two graduate-only year-long sequence courses in mathematics must be included in the 36-hour requirement.

Plan B. A minimum of 39 hours must be earned in mathematics. Two graduate-only year-long sequence courses in mathematics must be included in the 39-hour requirement.

II. Cognate Areas.

A maximum of 9 quarter hours may be taken in a related area acceptable to the student's adviser.

A final written examination must be successfully completed by all Plan B candidates. In addition, an oral exam may be required at the option of the Mathematics Graduate Faculty. Both a final written and a final oral examination must be successfully completed by all Plan A candidates. The oral examination will include a defense of thesis.

MASTER OF SCIENCE — Mathematics

An applicant for the M.S. degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed at least an undergraduate minor in mathematics. In some cases, the applicant may be required to complete additional undergraduate work.

Students pursuing a Master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

MASTER OF SCIENCE: Mathematics — Junior High School Program.**Plan A, 45 Cr.; Plan B, 48 Cr.**

- I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3-6 Cr.
 ED 615 Introduction to Research, 3 Cr.
 MATH 699 Master's Thesis, 6-9 Cr. (Plan A only)
- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.
 Select course work in the mathematics major. The program is planned by the student and the mathematics adviser. Credits may be earned in mathematics, mathematics education, and computer science. The number of credits in each area to be determined by the needs of the student.
- III. Professional Education: Min., Plan A or B, 9 Cr.
 Credits to be selected with approval of Professional Education Adviser.
- IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9-12 Cr.

MASTER OF SCIENCE: Mathematics — Senior High School Program.**Plan A, 45 Cr.; Plan B, 48 Cr.**

- I. Research: Min., Plan A, 9-15 Cr.; Plan B, 3-6 Cr.
 ED 615 Introduction to Research, 3 Cr.
 MATH 699 Master's Thesis, 6-9 Cr. (Plan A only)
- II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.
 Prescribed: Two 2-quarter mathematics sequences at the 600 level.
 Select course work in the mathematics major. A maximum of three credits selected from the mathematics education courses and a maximum of six credits from computer science.
- III. Professional Education: Min., Plan A or B, 9 Cr.
 Credits to be selected with approval of Professional Education Adviser.
- IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.

MATHEMATICS COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

515. Number Theory. Prime and composite integers. Diophantine analysis, number congruences, quadratic residues. Prereq.: 254. 3 Cr. W, SUM ALT.

530. Design and Analysis of Experiments. Analysis of variance, complete random design, randomized complete block design, nested design, Latin squares, other experimental designs. Prereq.: MATH 329 or 437. 3 Cr. W.

531. Regression Analysis. Linear and multiple regression, model building with selection procedures, nonlinear estimation, analysis of covariance. Prereq.: MATH 530 or 437. 3 Cr. S.

532. Nonparametric Statistics and Sample Survey. Sign test, rank sum tests, Mann-Whitney test, contingency tables, sampling, stratified sampling, other survey designs. Prereq.: MATH 329 or 437. 3 Cr. DEMAND.

536. Complex Variables. The complex field, the theory of analytic functions, power series, Fundamental Theorem of Algebra. Prereq.: 354 or consent of instructor. 3 Cr. S, SUM ALT.

537. Probability and Statistics I. Axiomatic development of probability, continuous and discrete sample spaces, random variables, probability density functions, Bayes' Theorem. Prereq.: 243, 254. 3 Cr. F, SUM ALT.

538. Probability and Statistics II. Distributions of functions of random variables, multidimensional random variables, t and f distributions, moment generating functions. Prereq.: 244, 537. 3 Cr. W.

539. Probability and Statistics III. Point estimation and sufficient statistics, maximum likelihood estimation of parameters, statistical hypotheses, statistical tests. Prereq.: 538. 3 Cr. S.

540. History of Mathematics. Historical survey of the development of mathematics. Prereq.: 241. 3 Cr. S, SUM ALT.

545. Introduction to Real Analysis I. Functions, complete ordered fields, sequences

and series of real numbers. No calculus skills are required. Prereq.: 354. 3 Cr. F ALT.

546. Introduction to Real Analysis II. Limits, metric spaces, continuous functions, connectedness, completeness, compactness, uniform continuity. Prereq.: 545. 3 Cr. W ALT.

547. Introduction to Real Analysis III. Riemann integral, derivatives, theorems of calculus, sequences and series of functions. Lebesgue integral. Prereq.: 546. 3 Cr. S ALT.

552. Recent Trends in Secondary School Mathematics. Number systems, sets, deduction, algebras, geometries, vectors, limits, functions, probability, computers, decisions. The changing mathematics curriculum. 4 Cr. DEMAND.

553. Mathematics for Special Education. Materials and activities employed in teaching mathematics to children in special education. Emphasis on stages of development. Prereq.: 250. 3 Cr.

555. Foundations of Mathematics. Operations on sets, relations, and functions, cardinal number, ordinal arithmetic, the axiom of choice, axiomatic theories. 3 Cr. SUM ALT.

557. Linear Algebra. Vector spaces, Euclidean n -space, linear transformations, matrices. Prereq.: 242, 356. 3 Cr. F, W, SUM ALT.

559. Recent Trends in Elementary School Mathematics. Modern approach to teaching arithmetic, teaching aids and devices, experimental work, recent research. 4 Cr. DEMAND.

560. Topology. Metric spaces, topological spaces, separation axioms, connectedness, compactness. Prereq.: 356. 3 Cr. W ALT, SUM ALT.

570. Numerical Analysis. Difference tables and application, interpolation, numerical integration and differentiation, error analysis, numerical solution of equations. Prereq.: 271, 243. 3 Cr. W.

COMPUTER SCIENCE COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

565. Discrete Computational Structures. Basic forms and operations, binary trees, formal and natural languages, Boolean algebras. Prereq.: Knowledge of one high level programming language. 3 Cr. DEMAND.

577. Computers in Society and the Classroom. Historical development of computing, use of BASIC language in timesharing, instructional timesharing in the school. Prereq.: Consent of instructor. 3 Cr. DEMAND.

578. Artificial Intelligence and Heuristic Programming. Heuristic versus deterministic methods, game playing programs, theorem proving programs, and decision making programs. Prereq.: 395. 3 Cr. DEMAND.

MATHEMATICS COURSES FOR GRADUATE STUDENTS ONLY

611. Teaching Mathematics in the Secondary School. Survey of mathematics curricular development, objectives and content of proposals for change in the mathematics curriculum, learning theory, issues and trends. 3 Cr. F ALT, SUM ALT.

616. Teaching Geometry in the Secondary School. Historical development, current issues and trends, curricular reform movements, experimental programs, research findings. 3 Cr. W ALT, SUM ALT.

619. Teaching Algebra in the Secondary School. Topics related to the teaching of algebra and related areas. Historical aspects, methodology, curricular developments; evaluation and research findings in algebra. 3 Cr. S ALT, SUM ALT.

624. Modern Geometry I. An overview of Euclidean and non-Euclidean geometries, and the fundamentals of synthetic projective geometry. Prereq.: One course in college level geometry. 3 Cr. F ALT, SUM ALT.

625. Modern Geometry II. Oriented toward transformational geometry. Topics for study include: Klein's Erlanger Program and an analytic model of the real projective plane. Prereq.: 624 and a background in vector spaces, matrices. 3 Cr. W ALT, SUM ALT.

636. Complex Analysis I. The complex field, topology of the complex plane, analytic

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functions. 3 Cr. SUM ALT.

637. Complex Analysis II. Complex Integration Theory. Prereq.: 636. 3 Cr. SUM ALT.

638. Complex Analysis III. Complex series expansions, conformal mappings, Dirichlet's problem. Prereq.: 637. 3 Cr. DEMAND.

643. Calculus for Secondary Teachers. Review of calculus involving limits, integration, differentiation of elementary functions. Cannot be used in the M.A. program or part of the 24 quarter hours of mathematics in the M.S. program. 4 Cr. DEMAND.

645. Real Analysis I. The real number system. Lebesgue Measure and Integration. 3 Cr. DEMAND.

646. Real Analysis II. Differentiation, abstract spaces. Prereq.: 645. 3 Cr. DEMAND.

647. Real Analysis III. Generalized measure and integration. Prereq.: 646. 3 Cr. DEMAND.

656. Modern Algebraic Theory I. Group theory, rings and ideals, polynomials. Prereq.: 356. 3 Cr. F ALT, SUM ALT.

657. Modern Algebraic Theory II. Fields, field extensions, Galois theory. Prereq.: 656. 3 Cr. W ALT, SUM ALT.

658. Modern Algebraic Theory III. Selected topics from the theory of modules or homological algebra. Prereq.: 657. 3 Cr. DEMAND.

660. Topology I. Topological spaces, product spaces, net and filters, compactness. Prereq.: 356. 3 Cr. SUM ALT.

661. Topology II. Connectedness, separation axioms, metric spaces, completeness, comparison of topologies, function spaces. Prereq.: 660. 3 Cr. SUM ALT.

662. Topology III. Topics from uniform spaces, topological groups and algebras, algebraic topology. Prereq.: 661. 3 Cr. DEMAND.

671. Computer Programming. Concepts of programming Fortran. Writing a program to solve an approved problem in the major field. Lab. Prereq.: Approval of instructor and students' major adviser. 3 Cr. SUM ALT.

680. Graduate Seminar. Reading, research and discussion of selected topics. Prereq.: Consent of instructor. 1-3 Cr. DEMAND.

699. Master's Thesis. 3-9 Cr. F, W, S, SUM.

PHILOSOPHY (PHIL)

Chairperson: Myron Anderson

Graduate Faculty: M. Anderson, Boyer, Corliss, A. Phillips, J. Phillips, White, Yoos

The Department of Philosophy has three main functions: first, to provide all students with an introduction to the ideas, problems, and methods of philosophers; second, to give courses serving the particular needs of students who are majoring or minoring in other fields; third, to offer major and minor programs for those with special interests in one or more areas of philosophy, such as philosophy of science, social philosophy, ethics, philosophy of religion, and logic.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

510-529. Special Studies. Seminar for intensive study of a particular philosopher (as announced in the class schedule), or of the philosophical problems in a special discipline, such as history or biology or behavioral sciences. 2-4 Cr. DEMAND.

531. Philosophy of Art. A general introduction of philosophical questions relating to the fine arts. 4 Cr. W ALT.

532. Film Aesthetics. An introduction to motion pictures as an art form and a critical examination of various theories of film. Special attention to: Russian theories of montage, the *Auteur* theory, and the realist thesis. 4 Cr. S.

533. Philosophy of History. An examination of the main problems and concepts of the philosophy of history; the nature of historical explanation, historicism, objectivity, and meaning in history. 4 Cr. W ALT.

542. History of American Philosophical Thought. Tracing of the course of development of American philosophy from its beginnings: Puritanism, Transcendentalism, Idealism, Pragmatism, Realism, and Contemporary Analysis. 4 Cr. W ALT.

PHYSICS (PHYS)

Chairperson: Philip Youngner

Graduate Faculty: Youngner, Eckroth, Ellis, Garrity, Lesikar, McWilliams, W. Pou, Trummel, Watkins

MASTER OF SCIENCE — Physical Science

An applicant for this degree must have completed an undergraduate teacher education program from an accredited teacher preparation institution and must have completed an undergraduate major in either physics, chemistry or earth science with some work in the other fields and in mathematics. In some cases the applicant may be required to complete additional undergraduate work even though a major may have been completed in one of the three fields.

Students pursuing a Master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

Plan A, 45 Cr.; Plan B, 48 Cr.

I. Research: Min., Plan A, 3 Cr.; Plan B, 9 Cr.

ED 615 Introduction to Research, 3 Cr. (or approved alternate)

PHYS 699 Master's Thesis, 6-9 Cr. (Plan A only)

II. Major: Min., Plan A, 18 Cr.; Plan B, 24 Cr.

Selected course work in chemistry, physics or earth science.

III. Professional Education: Min., Plan A or B, 9 Cr.

Approval of Secondary Education Adviser.

IV. Electives: Min., Plan A, 3-6 Cr.; Plan B, 9 Cr.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

520. Seminar. Lectures, readings, discussions on selected topics. 1-4 Cr. F, W, S, SUM.

530. Advanced Physics Laboratory. Advanced experiments relating to topics studied in senior college physics courses. Prereq.: 328 and 333. 3 Cr. F, W, S.

531. Introduction to Quantum Mechanics I. The Schrodinger wave equation and solutions for some simple cases; eigenfunctions, eigenvalues, expectation values, potential barrier problems, the harmonic oscillator, the hydrogen atom. Prereq.: 329 and MATH 434. 4 Cr. F.

532. Introduction to Quantum Mechanics II. A continuation of PHYS 531 in which the concepts of quantum mechanics are extended and some applications of quantum mechanics are discussed. Perturbation theory, angular momentum, transition probabilities, atomic and molecular spectra. Prereq.: 531. 4 Cr. W.

533. Modern Physics. Energy bands in solids; theories of electrical and magnetic properties of solids; semi-conductors; the nucleus; nuclear reactions. Prereq.: 532. 3 Cr. S.

535. Theoretical Physics — Mechanics I. Force fields, particle motions, rigid body motions, conservation laws, mechanics of deformable bodies, harmonic vibrations, resonance. Emphasis on vector-calculus methods. Prereq.: 1 year college physics and MATH 432. 4 Cr. F.

536. Theoretical Physics — Mechanics II. Conservative forces, mechanics of constrained particles, generalized coordinates, Lagrange's equations. Hamilton's equations,

variational principles. Prereq.: 535. 4 Cr. DEMAND.

537. Intermediate Electricity. Electric field and potential, dielectric theory and electric displacement, Poisson's and Laplace's equations. Prereq.: 236, MATH 243. 4 Cr. W.

538. Theoretical Physics — Electricity and Magnetism. Magnetic fields and potentials, materials, time dependence, Maxwell's equations, electromagnetic waves, transmission lines. Prereq.: 537. 4 Cr. DEMAND.

540. Biophysics-Instrumentation and Material Properties. Mechanical electrical and optical properties of biological material. Prereq.: 213; CHEM 211, 212; concurrent enrollment in BIOL 303. 3 Cr. ALT.

541. Biophysics-Neurophysics and Bioelectricity. Electroneurophysiology, signal analysis, sensory and motor transduction. Prereq.: 213; CHEM 211, 212; concurrent enrollment in BIOL 303. 3 Cr. ALT.

542. Bioengineering System Analysis. Biological feedback and control mechanisms, biocommunication theory, bionics and computer aspects of living systems. Prereq.: 213; CHEM 211, 212; concurrent enrollment in BIOL 303, 464, 465. 3 Cr. ALT.

556. Methods for Teaching Science. Modern approaches to teaching science in junior or senior high school. Lab. 2 Cr. W.

559. Methods and Materials for Teaching Physics. Modern approaches to teaching of high school physics in classroom and laboratory, including materials of Physical Science Study Committee. Lab. 2 Cr. W.

COURSES FOR GRADUATE STUDENTS ONLY

618. Atomic Physics for Science Teachers. Bohr theory, atomic spectra, deBroglie waves. Cannot be taken for credit if credit has been received in PHYS 328. Prereq.: 1 year college physics and integral calculus. 4 Cr. W, SUM.

619. Nuclear Physics for Science Teachers. Radioactivity, the nucleus, nuclear reactions, cosmic rays. Cannot be taken for credit if credit has been received in PHYS 329. Prereq.: 328 or 618. 4 Cr. S, SUM.

699. Master's Thesis. 3-9 Cr. F, W, S, SUM.

POLITICAL SCIENCE (POL)

Chairperson: Evan Jones

Graduate Faculty: E. Jones, R. Becker, Kairouz, O. Schmidt, T. Smith, Williamson

Students interested in the area of Political Science must refer to the requirements of Social Science.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

511. The Presidency. White House Staff, relations with heads of departments, legislative leadership, defense responsibilities, foreign relations, party activities. Prereq.: 211. 4 Cr. IRR.

512. Legislative Process. Problems faced by democratic legislatures such as the influence of committees, political party influence, pressure groups. Prereq.: 211. 4 Cr. IRR.

513. Judicial Process. An examination of the structure, process and personnel of American courts with particular emphasis on the role of the United States Supreme Court in the American political system. Prereq.: 211. 4 Cr. F, S.

529. Seminar:_____ Discussion, readings and research under faculty guidance and supervision. Specific topic selected each time offered. Prereq.: Previous coursework in the subject matter area, or permission. May be repeated. 1-4 Cr. Max. of 9 Cr. F, S.

551. International Law. Survey of development and contemporary application of rules and principles of international law: maritime laws, ocean resources, space, and peaceful settlement of disputes between states. Prereq.: 211. 4 Cr. DEMAND.

552. United Nations and Regional Organization. History and development of the community of nations, organization and authority of the League of Nations and of the United States and its auxiliary components. 4 Cr. DEMAND.

563. American Political Thought. Study of the philosophy and theories which underlie the American system of democratic government and which have contributed to the formation of this system of government. Prereq.: 211. 4 Cr. W.

565. Modern Ideologies. A study of the ideologies of Facism, Communism, and ideas which have contributed to Democratic thought. Prereq.: 211. 4 Cr. S.

571. Political Parties and Elections. The structure and activities of American political parties and their impact on individual and group political behavior. Prereq.: 211. 4 Cr. IRR.

581. Administering Public Policy. Studies of the initiation, content, administration, and impact of selected contemporary domestic government policies: transportation, consumerism, environment, poverty. Prereq.: 211. 4 Cr. IRR.

583. Managing Local Governments. Practical problems of local administration including grant applications, personnel, budgeting, public works, and local renewal. Prereq.: 282 or 313 or consent of instructor. 4 Cr. IRR.

585. Administrative Law. Legal problems arising out of use of administrative agencies; administrative procedure; judicial relief against administrative action. 4 Cr. W.

591. Constitutional Law. A study of Supreme Court decisions which interpret the federal system; powers of the legislative, executive, and judicial branches; the commerce clause; federal taxation powers. Prereq.: 211. 4 Cr. F. DEMAND.

592. The Courts and Civil Rights. Supreme Court decisions concerning discrimination, speech, religion, search and seizure, counsel and other individual rights. Prereq.: 211. 4 Cr. F, S.

COURSES FOR GRADUATE STUDENTS ONLY

619. American Government Seminar:_____ Research under faculty guidance and supervision. A specific topic selected each time offered. Prereq.: Consent of instructor. May be repeated. 1-4 Cr. IRR.

639. Comparative Government Seminar:_____ Research under faculty guidance and supervision. A specific topic selected each time offered. Prereq.: Consent of instructor. May be repeated. 1-4 Cr. IRR.

659. International Relations and Organization Seminar:_____ Research under faculty guidance and supervision. A specific topic selected each time offered. Prereq.: Consent of instructor. May be repeated. 1-4 Cr. IRR.

SOCIOLOGY (SOC) AND ANTHROPOLOGY (ANTH)

Chairperson: Claude DelZoppo

Graduate Faculty: DelZoppo, Baer, Deininger, Goodrich, Harper, Hatcher, Kroeger

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

540. Public Opinion and Propaganda. Nature, function, formation, and measurement of public opinion; attempts to influence public opinion; propaganda. Prereq.: 260. 4 Cr. S.

542. Social Movements. Analysis of social movements; origin in discontent; role of ideas, personal relationships, organizational factors in their development. Some contemporary and social movements. Prereq.: 260. 4 Cr. W.

545. Political Sociology. An analysis of structural and ideological factors influencing the development and legitimation of political institutions and the sociological conditions influencing the political processes. 4 Cr. S.



547. World Population Problems. World population trends and pressures; their causes and consequences; war, international relations; standards of living; technological change; and cultural contrasts. Prereq.: 260. 4 Cr. DEMAND.

554. Collective Behavior. Unstable collectivities — collectivities with changing social structures. Nature, causes, and consequences of collective behavior in mobs, crowds, publics, etc. Prereq.: 260. 4 Cr. F.

556. Complex Organizations. Social and cultural characteristics of a variety of formal organizations, with emphasis on both theoretical and practical problems. Prereq.: 260. 4 Cr. DEMAND.

561. Sociology of Knowledge. Analysis of environmental and social correlates of a variety of belief systems as well as a study of the genesis, development, and decline of these belief systems. Prereq.: 260. 4 Cr. F.

562. Seminar. Discussion, readings, evaluation of sociological theory, social issues, or contemporary events. A specific topic selected each time offered. May be repeated. Prereq.: 260. 1-4 Cr. DEMAND.

563. Seminar Discussion and Readings in Advanced Anthropology. A specific topic selected each time offered. May be repeated. Prereq.: 250 or permission of department chairperson. 4 Cr. W, S.

565. Social Psychology. Influence of human relations and culture upon development of personality. Culture approaches to the development of attitudes, prejudices, roles, and groups. Prereq.: 260. 4 Cr. F, W, S, SUM.

567. Principles of Cultural Anthropology. Concepts and theories of anthropology. Analysis of tribal and peasant cultures; comparison with more complex societies. 4 Cr. DEMAND.

569. Theory of Cultural Change. An examination of various theoretical approaches to the dynamics of culture change. Prereq.: 250. 4 Cr. DEMAND.

570. Minority Group Cultures and Contributions. Minority-group cultures and contributions and the position of minority groups in American society. Different minority groups will be focused upon in the course. 4 Cr. S.

573. Issues and Practice in Social Welfare. Background of the modern social work movement and development in its underlying theory. Prereq.: 260 and 365. 3 Cr. DEMAND.

576. American Social Institutions. The structure and interrelations of the major American institutions. Institutions as agencies of social control. Disorganization as an effect of social change. Prereq.: 260. 4 Cr. F, SUM.

580. Sociology of Conflict. The significance of conflict in social processes. Survey of classical and contemporary theories of conflict, with application in contemporary society. Prereq.: SOC 260. 4 Cr. DEMAND.

585. Contemporary Sociological Theory. Systematic organization of concepts and principles for the explanation of social phenomena and as a guide to contemporary sociological research. Prereq.: 260. 4 Cr. F, W, S, SUM.

590. Field Methods in Anthropology. Anthropological field methods in one of the major subdisciplines of anthropology, archaeology, ethnography, or linguistics. Consent of instructor. 1-8 Cr. SUM.

COURSES FOR GRADUATE STUDENTS ONLY

668. Minority Groups in Society. Patterns of social dominance and subordination. Causes and consequences of prejudice and discrimination. Sociological theory and dominant-minority relations. Prereq.: 260. 4 Cr. DEMAND.

SPEECH COMMUNICATION (SPC)

Chairperson: Arthur Grachek

Graduate Faculty: Grachek, Kendall, Sikkink, Vick, Wick

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

515. Rhetorical Criticism. Concepts, terminology, methods and literature of rhetorical criticism. Prereq.: 220 or instructor consent. 4 Cr. F.

520. Theories of Persuasion. Study of the elements of persuasion, including psychological and sociological theories, communication concepts and models, and analysis of communication situations and systems. Speaking and criticism. 4 Cr. S.

521. American Public Address. Major speakers in American history studied from a rhetorical perspective. Prereq.: 415. 4 Cr. DEMAND.

530. Modern Theories of Communication. Introduction to theories of human communication including theories of the neurophysiological, perceptual and semantic foundations of communication and theories and models of human interaction. 4 Cr. W.

535. Theories of Small Group Process. Introduction to theories of small group processes, particularly as they relate to communication within and between small groups. 4 Cr. DEMAND.

540. Advanced Public Speaking. Exploration in depth of speech principles through speech making and selected readings. 4 Cr. DEMAND.

552. Teaching of Speech. Materials and methods for curricular and co-curricular teaching of speech in secondary schools. **Must** precede student teaching. Prereq.: 15 credits in SPC. 4 Cr. F.

580. Seminar in Speech Communications. Discussions and readings in advanced speech topics. A specific topic will be listed each time offered. May be repeated. Prereq.: Senior/graduate standing or permission of instructor. 4 Cr. DEMAND.

SPEECH SCIENCE, PATHOLOGY, AND AUDIOLOGY (SSPA)

Chairperson: Martin Kammermeier

Graduate Faculty: Kammermeier, Davenport, Jacobson, Powers

MASTER OF SCIENCE

Admission to the graduate program in Speech Science, Pathology and Audiology requires completion of an undergraduate major in speech pathology or audiology with at least a "B" average. When a student has a Bachelor's degree in an area other than speech pathology or audiology, he may be admitted to the program on condition that he complete 24 quarter hours of undergraduate work in speech pathology and audiology. Requirements for admission related to academic standing are the same as those established by the graduate school.

Students pursuing a Master's degree must earn a minimum of 15 GRADUATE ONLY credits in their major field of concentration.

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Plan A, 45 Cr.; Plan B, 48 Cr.

I. Research

Prescribed:

Plan A: 9-15 Cr.

SSPA 620 Research in SSPA, 3 Cr.

SSPA 699 Master's Thesis, 3-9 Cr.

PSY 678 Introduction to Statistics, 3 Cr.

Plan B: Min., 6 Cr.

SSPA 620 Research in SSPA, 3 Cr.

PSY 678 Introduction to Statistics, 3 Cr.

II. Major: Min., 24 Cr.

Prescribed:

A. SSPA 520 Experimental Phonetics, 3 Cr.

SSPA 560 Language Development, 3 Cr.

SSPA 636 Diagnosis in Speech and Hearing, 3 Cr.

SSPA 642 Advanced Audiology, 3 Cr.

SSPA 651 Practicum, 6 Cr.

B. PSY 663 Applied Theories of Learning, 3 Cr.

Elective: Min., 3 Cr.

III. Elective Courses

Plan A, 6-12 Cr.

Plan B, Min., 18 Cr.

The Fifth Year Program

I. Prescribed courses: (same as M.S. degree).

II. Elective courses: These courses are to be elected in conference with the major adviser. Students are reminded that they must have a minimum of 15 credits in courses which are open only to graduate students. Courses from the 300, 400, 500, and 600 level will be acceptable. 18 Cr.

III. Practicum: SSPA 651, 6 Cr.

COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

520. Experimental Phonetics. Relationship between the acoustic features of speech sounds and perceptions of speech. 3 Cr. F.

555. Behavioral Management of Speech and Language Problems. Behavior modification applied to clinical and research problems in speech pathology and audiology. 3 Cr. S.

559. Introduction to Language. A survey of theories and methods of investigation of the various disciplines concerned with the study of language. 3 Cr. F.

560. Language Development. Speech and language acquisition in normal children. 3 Cr. F.

561. Language Appraisal and Intervention. Etiology, theory and supporting research, and approaches to treatment of delayed speech and language. 3 Cr. W.

568. Introduction to Children's Language. Language development from birth through adolescence emphasizing content and process. Recognition of language differences and deficits and suggestions for teaching language skills to pre-school and elementary children. 3 Cr. W.

COURSES FOR GRADUATE STUDENTS ONLY

620. Research in Speech Pathology and Audiology. Evaluation of methods and results of original research; experimental design; statistical procedures. 3 Cr. F.

634. Cleft Palate. The communication problems of the individual with a cleft palate: embryology, etiology, anatomy, physiology of clefts, surgical, prosthodontic, orthodontic, speech therapy and audiological interventions. 3 Cr. S.

635. Aphasia. Speech and language problems related to stroke and other forms of

brain trauma. Comparison of current tests for aphasia and approaches to therapy for the aphasic patient. 3 Cr. F.

636. Diagnosis in Speech and Hearing. Evaluation and use of diagnostic tools. Includes participation in diagnostic evaluations and preparation of clinical reports. 3 Cr. F, W, S.

637. Dysarthria. Speech problems related to deficiencies of the central nervous system. Etiology in different age groups. Effects on articulation, phonation, respiration, resonance, and prosody. Approaches to speech therapy. 3 Cr. S.

642. Advanced Audiology. Above-threshold audiometric testing. Objective audiometry. Aid fitting. Auditory training. 3 Cr. W.

651. Graduate Practicum in Speech and Hearing. Application of theory and research to clinical problems. 1-3 Cr. F, W, S.

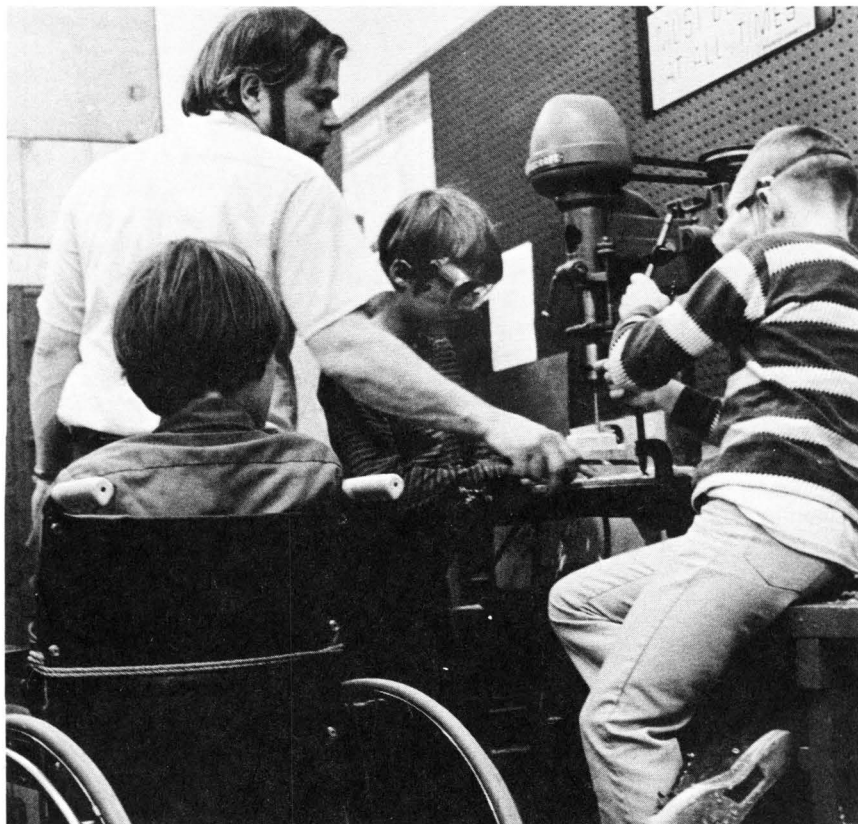
660. Seminar: Language Disorders of Children. An in-depth study of specialized topics germane to the assessment and remediation of language problems in children. Prereq.: SSPA 459-559, 460-560, 461-561 or equivalent. 3 Cr. W.

670. Seminar: Voice. Critical evaluation of clinical and research data supporting current practices in treatment of voice disorders. 3 Cr. W.

671. Seminar: Articulation. Critical evaluation of clinical and research data supporting practices in treatment of articulation disorders. 3 Cr. S.

676. Seminar: Stuttering. Nature, etiology and treatment of stuttering with emphasis on published research. 3 Cr. W.

699. Master's Thesis. 3-9 Cr. F, W, S.



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Jonathan Lawson, Associate Dean, College of Liberal Arts and Sciences
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Wayne Little, Associate Dean, College of Business
Vernon Ludeman, Associate Dean, School of Graduate Studies; Director, Summer School
James Marmas, Dean, College of Business
Terrance Montgomery, Assistant to the President; Vice President, University Relations (on leave)
William Radovich, Vice President for Administrative Affairs
Alvin Schelske, Acting Dean, School of Graduate and Continuing Studies
David Sprague, Vice President for Student Life and Development
Robert Wick, Distinguished Service Professor; Acting Vice President for University Relations

GRADUATE FACULTY

FACULTY APPOINTMENTS

Abartis, Caesarea G.

English
Ph.D., Southern Illinois University

Acree, Kenneth

History
Ph.D., University of Wisconsin

Aiken, Joseph G.

Art
M.F.A., University of Washington

Alhelm, Frank

Art
Ed.D., University of New Mexico

Anderson, Derwyn L.

Psychology
Ph.D., University of North Dakota

Anderson, Florence

Elementary Education
Ed.D., University of Minnesota

Anderson, Garry G.

Earth Science
Ph.D., Indiana University

Anderson, James B.

English
Ph.D., University of Iowa

Anderson, James W.

Educational Administration
Ph.D., University of Minnesota

Anderson, Myron G.

Philosophy
Ph.D., Brown University

Arndts, Russell

Chemistry
Ph.D., Louisiana State University

Ayers, Floyd

Special Education
Ph.D., University of Minnesota

Baer, Roger K.

Sociology and Anthropology
Ph.D., University of Chicago

Bahauddin, Mohammed

Mathematics and Computer Science
Ph.D., New Mexico State University

Barker, S. Hugh

Biological Sciences
Ph.D., University of Wisconsin

Barrett, Roger

Music
Ph.D., State University of Iowa

Baschky, Richard

Theatre
M.F.A., University of Iowa

Bavery, Edgar

Elementary Education
Ed.D., University of Northern Colorado

Becker, Robert

Political Science
J.D., William Mitchell College of Law

Benson, Robert G.

Marketing and General Business
Ph.D., State University of Iowa

Bergstrom, Philip G.

Industrial Education
Ed.D., Washington State University

Berling, John C.

Library and Audiovisual Education
Ph.D., University of Nebraska

Bird, Howard A.

Mathematics and Computer Science
Ph.D., Kansas State University

Bjorklund, Eugene

Secondary Education
Ed.D., University of Nebraska

Bleick, Frances A.

Health, Physical Education and
Recreation
D.P.E., Indiana University

Boltuck, Charles

Psychology
Ph.D., Indiana University

Bovee, John R.

English
Ph.D., Washington State University

Boyer, David L.

Philosophy
Ph.D., Boston University

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Brewer, A. Wilbur

Secondary Education
Ed.D., Washington State University

Brink, Allen

Mathematics and Computer Science
Ed.D., University of Northern Colorado

Brown, David

Art
M.F.A., Indiana University

Bruhn, Marcus C.

Economics
Ph.D., University of Wisconsin

Bruton, Charles

Biological Sciences
Ph.D., University of North Dakota

Buckley, Chester

Health, Physical Education, and
Recreation
D.P.E., Springfield College

Burnes, Bruce B.

Management and Finance
Ph.D., University of Minnesota

Cairns, Paul

English
Ph.D., University of Michigan

Calhoun, Robert

Marketing and General Business
J.D., University of Minnesota

Carlson, Kent

Mathematics and Computer Science
Ph.D., Montana State University

Carlson, Ronald E.

Accounting
Ph.D., University of Wisconsin

Carpenter, John

Chemistry
Ph.D., Purdue University

Carr, Ralph W.

Mathematics and Computer Science
Ph.D., University of Wisconsin-Madison

Carter, P. John

Industrial Education
Ed.D., University of Northern Colorado

Cermele, Dominick J.

Theatre
M.F.A., Boston University

Char, Lynette

Elementary Education
Ph.D., University of Minnesota

Clapp, Thomas W.

Biological Sciences
Ph.D., Texas A. & M. University

Coard, Robert L.

English
Ph.D., University of Illinois

Coen, Rena

Art
Ph.D., University of Minnesota

Coppock, Henry

Geography
Ph.D., Michigan State University

Corliss, Richard L.

Philosophy
Ph.D., University of Illinois

Coulter, John

Biological Sciences
Ph.D., University of Minnesota

Cox, LaVerne

Management and Finance
Ph.D., University of Nebraska

Craik, Bernice Mary

Psychology
Ph.D., University of Iowa

Cronn, John C.

Biological Sciences
Ph.D., University of Nebraska

Davenport, Richard W.

Speech Science, Pathology and
Audiology
Ph.D., Iowa State University

Deininger, Marian M.

Sociology and Anthropology
Ph.D., University of Minnesota

Delgado, Ramon L.

Theatre
Ph.D., Southern Illinois University

DelZoppo, Claude

Sociology and Anthropology
Ph.D., University of Iowa

Dendinger, Richard D.

Chemistry
Ph.D., South Dakota State University

DeSanto, R. John

Mass Communications
Ed.D., University of Northern Colorado

Downes, Alan J.

Interdisciplinary Studies
Ph.D., University of Washington

Dull, Alyn N.

Mathematics and Computer Science
Ed.D., University of South Dakota

Dwyer, Mary

Psychology
Ed.D., Columbia University

Earles, Robert

Mathematics and Computer Science
Ed.D., University of Northern Colorado

Echols, Charles L.

Music
D.M.A., University of Southern California

Eckroth, Charles

Physics
Ph.D., Iowa State University

Ellingson, William

Art
M.F.A., State University of Iowa

Ellis, Bruce

Physics
Ph.D., University of Minnesota

Erickson, John M.

Chemistry
Ph.D., Iowa State University

Ernest, David

Music
Ed.D., University of Colorado

Ernst, Charles I.

Mathematics and Computer Science
Ph.D., Ohio State University

Ezell, Wayland

Biological Sciences
Ph.D., Oregon State University

Falk, Armand E.

English
Ph.D., Michigan State University

Farrah, George

Educational Administration
Ed.D., Wayne State University

Fields, Dennis C.

Library and Audiovisual Education
Ed.D., East Texas State University

Flom, James

Music
Ph.D., University of Minnesota

Frohrip, Kenton

Music
Ph.D., University of Minnesota

Frost, C. Robert

International Studies
Ph.D., University of Denver

Gadberry, Eva

Special Education
Ph.D., University of Wisconsin

Gambill, Edward

History
Ph.D., University of Iowa

Garrity, Michael K.

Physics
Ph.D., Arizona State University

Gerber, Quentin N.

Accounting
Ph.D., University of Minnesota

Gleisner, Richard F.

Economics
Ph.D., Georgetown University

Goodrich, Herbert

Sociology and Anthropology
Ph.D., University of Illinois

Gottshall, James K.

English
Ph.D., University of Cincinnati

Gower, Calvin W.

History
Ph.D., University of Kansas

Grachek, Arthur

Speech Communication
Ph.D., Wayne State University

Gray, Jack C.

Accounting
Ph.D., Ohio State University

Greenley, Douglas A.

Economics
Ph.D., Colorado State University

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Grewe, Alfred

Biological Sciences

Ph.D., University of South Dakota

Grover, Larry L.

Mathematics and Computer Science

Ph.D., Michigan State University

Grunerud, James A.

Secondary Education

Ph.D., University of California

Gundersen, Ralph

Biological Sciences

Ph.D., University of Minnesota

Gutteter, Lee J.

Art

Ed.D., Indiana University

Gyllstrom, Mabeth

Music

A.Mus.D., University of Michigan

Habte, Amde

Mass Communications

Ph.D., University of Minnesota

Halberg, Laurie

Art

M.F.A., State University of Iowa

Hanafy, Abdalla

Marketing and General Business

Ph.D., University of Illinois

Haniff, Ghulam

Interdisciplinary Studies

Ph.D., Case Western Reserve University

Hare, Sharon E.

Art

M.F.A., Claremont Graduate School

Harper, Jessie G.

Sociology and Anthropology

Ph.D., University of Nebraska

Hatcher, Evelyn

Sociology and Anthropology

Ph.D., University of Minnesota

Heakal, Mohamed S.

Accounting

Ph.D., University of Illinois

Heath, Richard D.

Quantitative Methods and Information
Systems

Ph.D., University of Minnesota

Hellwig, David J.

Interdisciplinary Studies

Ph.D., Syracuse University

Hemmer, Joan D.

Psychology

Ph.D., University of Colorado

Highsmith, James

Marketing and General Business

J.D., Ohio State University

Hill, Fred

Library and Audiovisual Education

Ed.D., University of Indiana

Holden, Donald

Educational Administration

Ed.D., University of Wyoming

Holmgren, Marvin E.

Educational Administration

Ph.D., University of Minnesota

Hopkins, Harold

Biological Sciences

Ph.D., University of Nebraska

Hopwood, Alfred

Biological Sciences

Ph.D., Colorado State University

Jacobson, Joan

Speech Science, Pathology and
Audiology

Ph.D., Syracuse University

James, Richard

Chemistry

Ph.D., Kansas State University

Johnson, Douglas H.

College of Education

Ed.D., Western Michigan University

Johnson, James C.

Marketing and General Business

Ph.D., University of Minnesota

Johnson, James R.

Music

Ed.D., University of Illinois

Johnson, James W.

Mathematics and Computer Science

Ph.D., University of Colorado

Johnson, Peter

Secondary Education

Ed.D., University of North Dakota

Johnson, Richard A.
Special Education
Ed.D., University of Minnesota

Johnson, Robert W.
Mathematics and Computer Science
Ph.D., City University of New York

Johnson, Vincent
Biological Sciences
Ph.D., University of Nebraska

Joines, Paul
Music
D.M.A., University of Oregon

Jones, Evan M.
Political Science
Ph.D., University of Nebraska

Jones, Jack
College of Education
Ed.D., University of Kansas

Kairouz, Akl
Political Science
Ph.D., University of Utah

Kammermeier, Martin
Speech Science, Pathology, and
Audiology
Ph.D., University of Minnesota

Karakas, Louis
Elementary Education
Ed.D., University of North Dakota

Kasper, John
Health, Physical Education, and
Recreation
P.E.D., Indiana University

Kaye, Harvey J.
Interdisciplinary Studies
Ph.D., Louisiana State University

Keith, Phillip M.
English
Ph.D., University of Pennsylvania

Kelley, James W.
Interdisciplinary Studies
Ph.D., University of Denver

Kelly, John
Health, Physical Education, and
Recreation
D.P.E., Springfield College of Arts

Kelsey, Kenneth
Student Teaching
Ph.D., University of Minnesota

Kemp, William
Industrial Education
Ed.D., University of Northern Colorado

Kendall, Robert
Speech Communication
Ph.D., University of Minnesota

Kennedy, Keith A.
Chemistry
Ph.D., University of Iowa

Knox, Stanley
Special Education
Ph.D., University of Minnesota

Knutson, Jack
Psychology
Ph.D., Stanford University

Knutson, Keith
Biological Sciences
Ph.D., North Dakota State University

Korte, Gerald
Art
Ph.D., University of Kansas

Kramer, David C.
Biological Sciences
Ed.D., Ball State University

Kroeger, Virgil J.
Sociology and Anthropology
Ph.D., University of Minnesota

Krueger, Albert
Psychology
Ph.D., University of Wisconsin

Krueger, David
Quantitative Methods and Information
Systems
Ph.D., Kansas State University

Kukuk, William D.
Psychology
Ph.D., Brigham Young University

Laakso, John W.
Chemistry
Ph.D., University of Minnesota

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Lacroix, William

Industrial Education
Ph.D., Iowa State University

Lahren, David

Mathematics and Computer Science
D.A., University of Northern Colorado

Lamwers, Linda L.

Psychology
Ph.D., Rutgers University

Lane, James A.

Business Education
Ed.D., Oklahoma State University

Langen, William G.

Foreign Languages and Literature
Ph.D., University of Arizona

Lawson, Jonathan N.

English
Ph.D., Texas Christian University

Layne, Richard D.

Music
Ph.D., University of Southern California

Leitch, Vernon D.

Mathematics and Computer Science
Ed.D., University of Northern Colorado

Leja, Alfred E.

English
Ph.D., University of Texas

Lesar, David

Psychology
Ed.D., Indiana University

Lesikar, Arnold

Physics
Ph.D., California Institute of Technology

Leung, Leo K.

Mathematics and Computer Science
D.A., Idaho State University

Lewis, James

Special Education
Ed.D., University of Nebraska

Lewis, Richard D.

History
Ph.D., University of California

Lewis, Standley E.

Biological Sciences
Ph.D., Washington State University

Lieberman, Harold

Interdisciplinary Studies
D.S.S., Syracuse University

Lindstrom, Lester

Biological Sciences
Ph.D., Kansas State University

Lofgreen, Harold A.

Economics
Ph.D., University of Iowa

Lovelace, William

Special Education
Ed.D., University of North Dakota

Lu, Debra

Accounting
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Lu, Ming te

Quantitative Methods and Information
Systems
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Luker, Albert

Psychology
Ed.D., University of Northern Colorado

Luksetich, William A.

Economics
Ph.D., Northern Illinois University

Lundquist, James C.

English
Ph.D., University of Florida

McCue, John

Biological Sciences
Ph.D., University of Notre Dame

McMullen, James

Chemistry
Ph.D., University of South Dakota

McWilliams, Alexander S.

Physics
Ph.D., Ohio State University

Madsen, Russell

Business Education
Ph.D., University of Minnesota

Magnus, Douglas L.

Chemistry
Ed.D., University of North Dakota

Mason, John E.

Psychology
Ph.D., Kent State University

Massmann, John

History
Ph.D., University of Minnesota

Matthias, Howard E.

Center for Driver Education and Safety
Ph.D., Michigan State University

Mattick, Pamm

College of Education
Ph.D., University of Minnesota

Meissner, William J.

English
M.F.A., University of Massachusetts

Melton, John L.

English
Ph.D., Johns Hopkins University

Miller, Donald P.

Mathematics and Computer Science
Ph.D., Florida State University

Mills, Anita

Art
M.F.A., University of Texas-Austin

Moody, George E.

Management and Finance
D.B.A., Indiana University

Mork, David

Biological Sciences
Ph.D., Purdue University

Mork, Vernon N.

Secondary Education
Ed.D., University of North Dakota

Morohoshi, Yutaka

Health, Physical Education, and
Recreation
Ph.D., University of Utah

Mortrude, Gordon

Elementary Education
Ed.D., University of North Dakota

Mortrude, Lowell

Secondary Education
Ed.D., University of North Dakota

Murphy, Robert

Psychology
Ph.D., University of Tennessee

Nappi, Andrew

Research Development and
Community Service
Ph.D., Ohio University

Nelson, Charles

Earth Science
Ph.D., University of Chicago

Nelson, J. Michael

Library and Audiovisual Education
Ed.D., East Texas State University

Nestel, Gerald

Industrial Education
Ed.D., University of Arkansas

Nickles, William

Chemistry
Ph.D., North Dakota State University

Nummela, Eric C.

Mathematics and Computer Science
Ph.D., Tulane University

Nunes, Dennis

Psychology
Ph.D., Utah State University

Olson, Harry

Business Education
Ph.D., University of Minnesota

Osendorf, Frank P.

Health, Physical Education, and
Recreation
H.S.D., Indiana University

Osowski, Judy M.

Interdisciplinary Studies
Ph.D., Washington State University

Otto, Don H.

English
Ph.D., University of Southern California

Overy, David H.

History
Ph.D., University of Wisconsin

Pabst, Alfred A.

Management and Finance
Ph.D., George Washington University

Park, Thomas

Elementary Education
Ed.D., University of Florida

Partch, Max L.

Biological Sciences
Ph.D., University of Wisconsin

Peck, John H.

Biological Sciences
Ph.D., University of California

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Perkins, Eugene

Psychology

Ed.D., University of Northern Colorado

Perrier, Ronald G.

Theatre

Ph.D., University of Minnesota

Perry, Floyd

Student Teaching

Ed.D., University of Northern Colorado

Peterson, Dale W.

History

Ph.D., University of Minnesota

Peterson, Donald G.

Biological Sciences

Ph.D., University of Minnesota

Peterson, Terrance L.

Psychology

Ph.D., University of Wisconsin

Petrangelo, George J.

Psychology

Ed.D., University of Northern Colorado

Phillips, Alan M.

Philosophy

Ph.D., Michigan State University

Phillips, John N.

Philosophy

Ph.D., University of North Carolina

Pluth, Edward J.

History

Ph.D., Ball State University

Pou, Carol

Biological Sciences

Ph.D., Catholic University

Pou, Wendell

Physics

Ph.D., Vanderbilt University

Powers, Gerald L.

Speech Science, Pathology and
Audiology

Ph.D., University of Minnesota

Prochnow, Robert R.

Psychology

Ph.D., University of Texas

Prout, Robert

Criminal Justice Studies

Ph.D., Ohio State University

Purdom, Boyd

Elementary Education

Ed.D., George Peabody College for
Teachers

Quirin, James A.

History

Ph.D., University of Minnesota

Rajender, Gandhi

Management and Finance

Ph.D., University of Wyoming

Redd, Kathleen M.

Economics

Ph.D., University of Alabama

Redding, Arthur J.

Psychology

Ed.D., University of North Dakota

Reese, Frederick D.

Special Education

Ph.D., Ohio State University

Reese, Sandra

Special Education

Ph.D., Ohio State University

Reha, Rose

Business Education

Ph.D., University of Minnesota

Rehwaltdt, Charles

Biological Sciences

Ph.D., Syracuse University

Retiz, Leonard

Foreign Languages and Literature

Ph.D., University of Texas

Renz, Leland

Educational Administration

Ed.D., University of Minnesota

Riley, William

Management and Finance

Ph.D., University of Arkansas

Risberg, Douglas

Human Relations

Ph.D., University of Wisconsin

Rosenthal, Eugene

Psychology

Ph.D., University of Minnesota

Rouch, Roger

Elementary Education

Ed.D., Ball State University

Rouff, William

Interdisciplinary Studies
Ph.D., University of Maryland

Roy, James

Art
D.Ed., Pennsylvania State University

Rudans, Eriks D.

Art
M.F.A., University of Wisconsin

Ryan, Robert

Technology
Ed.D., University of Northern Colorado

Rydberg, David G.

Library and Audiovisual Education
Ed.D., University of Arizona

Samarrai, Alauddin

History
Ph.D., University of Wisconsin

Savage, Carl C.

Library and Audiovisual Education
Ed.D., School of Education,
New Orleans Baptist

Schmidt, Orville

Political Science
Ph.D., West Virginia University

Schmidt, Russell H.

Elementary Education
Ed.D., University of Florida

Schneider, Kenneth

Marketing and General Business
Ph.D., University of Minnesota

Schofield, R. Scott

Marketing and General Business
J.D., University of Minnesota

Schrader, Shirley

Music
Ph.D., University of Michigan

Schulzetenberg, Anthony

Library and Audiovisual Education
Ed.D., University of North Dakota

Schweiger, Bradley J.

Accounting
D.B.A., Indiana University

Scribner, Richard

Special Education
Ph.D., University of Southern Mississippi

Serdula, George

Health, Physical Education, and
Recreation
H.S.D., Indiana University

Shurr, George W.

Earth Science
Ph.D., University of Montana

Sikkink, Donald

Speech Communication
Ph.D., University of Minnesota

Simpson, Eleanor E.

Interdisciplinary Studies
Ph.D., University of Minnesota

Slalbeck, Bruce A.

Management and Finance
Ph.D., University of Northern Colorado

Smelser, Lawrence B.

Library and Audiovisual Education
Ed.D., University of Oklahoma

Smith, Michael L.

Management and Finance
Ph.D., University of Minnesota

Smith, Theresa C.

Political Science
Ph.D., University of Minnesota

Sorensen, David

Chemistry
Ph.D., University of Kansas

Soroka, Leonard G.

Earth Sciences
D.Ed., Pennsylvania State University

Stahlecker, Winston

Marketing and General Business
D.B.A., Arizona State University

Stinson, Marilyn

Business Education
Ph.D., University of North Dakota

Summers, Marcia

English
Ph.D., University of Illinois

Sundby, Lawrence

Accounting
Ph.D., University of Nebraska

Terrill, Richard J.

Criminal Justice Studies
Ph.D., Michigan State University

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Thies, Lois

Student Teaching
Ed.D., University of Northern Colorado

Thompson, Marvin

English
Ph.D., University of Minnesota

Thompson, Ruth F.

English
Ph.D., University of Minnesota

Tideman, Philip L.

Geography
Ph.D., University of Nebraska

Torrence, Judith L.

Biological Sciences
Ph.D., University of Minnesota

Tosh, Leo W.

English
Ph.D., University of Texas

Troyer, Beverly J.

Health, Physical Education, and
Recreation
Ph.D., University of Minnesota

Trummel, Donald R.

Physics
Ph.D., Southern Illinois University

Van Akin, Everett F.

Mathematics and Computer Science
Ph.D., University of Minnesota

VanPelt, Elizabeth

English
Ph.D., University of Illinois

Vaughter, Paul H.

History
Ph.D., University of Kentucky

Vick, Charles

Speech Communication
Ph.D., University of Denver

Wallin, Leland

Art
M.F.A., University of Cincinnati

Watkins, Ivan W.

Physics
Ph.D., Texas A. & M. University

Waxlax, Robert G.

Health, Physical Education, and
Recreation
Ph.D., University of Minnesota

Wentworth, Darrell F.

Management and Finance
Ph.D., University of Nebraska

White, James E.

Philosophy
Ph.D., University of Colorado

Whitlock, Delores

Health, Physical Education, and
Recreation
Ed.D., University of New Mexico

Wick, Robert H.

Speech Communication
Ph.D., State University of Iowa

Wilhite, Carmen L.

Music
D.M.A., North Texas State University

Williams, Steven F.

Biological Sciences
Ph.D., Oregon State University

Williamson, Homer E.

Political Science
Ph.D., University of Minnesota

Wollin, Dorothy

Psychology
Ph.D., State University of New
York at Buffalo

Yoos, George

Philosophy
Ph.D., University of Missouri

Youngner, Philip

Physics
Ph.D., University of Wisconsin

Zimmer, Robert

Accounting
Ph.D., Ohio State University



ADMINISTRATIVE APPOINTMENTS TO THE GRADUATE FACULTY

Ames, Kenneth A.
Dean, College of Education
Ed.D., University of Wyoming

Bates, William
Counseling
Ph.D., Kent State University

Bayne, Robert
Counseling
Ph.D., Kent State University

Bunch, William F.
Dean, College of Fine Arts
Ph.D., University of Iowa

Graham, Charles J.
President
Ph.D., University of Illinois

Hagen, Owen A.
Associate Dean, Continuing Studies
Ed.D., Columbia University

Ingwell, Paul
Director, Institutional Research
Ph.D., University of Minnesota

Johnson, David C.
Vice President, Academic Affairs
Ph.D., University of Iowa

Johnson, Louise H.
Dean, College of Liberal Arts and Sciences
Ed.D., University of Northern Colorado

Kelsey, Kenneth
Acting Associate Dean, College of Education
Ph.D., University of Minnesota



Lawson, Jonathan

Associate Dean, College of Liberal Arts
and Sciences
Ph.D., Texas Christian University

Lease, Alfred

Dean, College of Industry
Ph.D., University of Minnesota

Little, Wayne G.

Associate Dean, College of Business
Ph.D., University of Minnesota

Ludeman, Vernon L.

Associate Dean, School of Graduate
Studies
Ed.D., University of Northern Colorado

Marmas, James G.

Dean, College of Business
Ed.D., Stanford University

Patton, Dale

Counseling
Ed.D., Arizona State University

Rowland, Howard Ray

Director, Information Services
Ph.D., Michigan State University

Schelske, Alvin H.

Acting Dean, School of Graduate and
Continuing Studies
Ed.D., Columbia University

Sprague, David

Vice President, Student Life and Development
Ed.D., University of South Dakota

Wick, Robert H.

Acting Vice President, Institutional Research
Ph.D., State University of Iowa

UNIVERSITY SERVICES

ACADEMIC AFFAIRS

Center for Economic Education

The Center provides an inter-school program that has as a general objective the improvement of undergraduate and graduate economic education programs at the elementary, secondary and college levels of instruction. The Center initiates research projects, participates in the planning of new academic programs and provides resource assistance to elementary and secondary schools in Central Minnesota. This office conducts special adult education courses and offers symposiums and in-service workshops in economic education for teachers and curriculum supervisors. The Center emphasizes the development and distribution of economics curricular materials for classroom use and provides assistance to outside professional groups and institutions concerned with economic education.

In cooperation with the Department of Economics and Interdisciplinary Studies, the Center offers a Master of Science Degree in Social Science (Economic Education). This office conducts National Science Foundation, U.S. Office of Education and private foundation supported curriculum and research programs in economic education. The Center administers the National Depository of Children's Stories in Economics.

Common Market

St. Cloud State University is a participating member of the Minnesota State University Common Market plan which permits a student who has spent one year in residence at St. Cloud to spend up to three quarters at any of the other Minnesota state universities. The university also arranges internships for students through the Common Market program. Interested students should contact the Academic Affairs Office.

Extension and Continuing Education

Extension classes held in off-campus centers and continuing education classes held on the campus for the community are a part of the educational services to people in the St. Cloud State University service area. Regular courses and specially designed workshops, on both undergraduate and graduate levels, are offered to meet the needs of various community groups, including those in education, industry, business, and the general community. This is an all-college program under the coordination of the Academic Affairs Office.

LEARNING RESOURCES SERVICES

Centennial Hall, the Learning Resources Center for St. Cloud State University, serves all disciplines of the university. It is located as a focal point in the approximate center of the campus.

The Learning Resources Center includes all print and nonprint materials (and attendant hardware) for the academic community. This collection includes approximately one and one-half million items. Seating in the reading areas and study carrels accommodates about two thousand. It contains over 508,000 cataloged books, about 48,000 pamphlets, about 100,000 paper copies of federal documents, over 534,294 units of microform [including total Educational Resources Information Center (ERIC)], over 80,000 microbook units, over 47,000 maps, about 65,000 items of audio records and tapes, realia, slide sets, transparency sets, and videotapes, and approximately 2,000 magazines and newspapers. In addition to the resources in this collection, St. Cloud State University has access to the MINITEX network systems of Minnesota which provides access to the major collections of the University of Minnesota and the University of Wisconsin and other colleges and universities in the area and their respective collections.



ADMINISTRATIVE AFFAIRS

Auxiliary Services. This office assumes responsibility for the care, maintenance and operation of university-owned equipment and facilities. Also under the jurisdiction of Auxiliary Services are the custodial and maintenance operations, security, parking and the motor pool.

Computer Services. The Computer Center provides both educational and administrative services. A UNIVAC 1106 located at St. Cloud services the administrative data processing needs of the entire state university system. The primary academic requirements are served by a 1004 terminal to Mankato's UNIVAC 1106. Local time sharing service is also available.

Institutional Research. This office conducts studies to support administrative decisions, processes educational and governmental questionnaires, advises faculty in research activities and initiates research projects. The office also coordinates federal, state and private grants.

Printing Services. A central duplicating, xeroxing and printing facility for university-related materials is provided by this office.

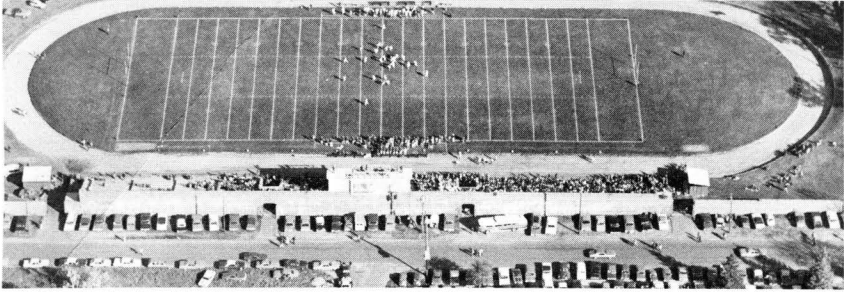
UNIVERSITY RELATIONS

Alumni Affairs. The Alumni Office maintains a file of graduates and serves as the liaison between the alumnus and the university. It keeps the alumnus informed about the university and his/her classmates. It provides opportunities for alumni to keep in touch with their university acquaintances through activities on and off campus. It is the vehicle through which alumni may give gifts of cash or property to the university.

Career Planning and Placement. The function of this office is to assist the undergraduates in developing their career plans and relating these plans to the employment market. Once the degree has or is about to be obtained, the office assists both current graduates and alumni in their search for suitable positions. The primary services include the assembling of a set of placement credentials, distribution of job opportunity lists, forwarding of credentials to prospective employers, coordinating on-campus interviews, maintaining a career library, providing statistical information, and advising students regarding career opportunities and employment techniques.

High School and Community College Relations. St. Cloud State University is represented at University Day/Night programs and individual high school and community college visits by members of this office. It provides specific admission, financial aid, and program information to college-bound students and their high school counselors. Tours are provided for campus visitors.

Information Services. This office disseminates information of general interest about the university to various publics served by the institution. It provides the mass media with university news and photographs. It prepares and coordinates all official university publications. The office also assists outside groups in scheduling activities on the campus.



BUILDINGS AND GROUNDS

The date after each building indicates when the building was completed and occupied.

CLASSROOM BUILDINGS

Brown Hall (1959). Classrooms and faculty offices. Named for Joseph C. Brown, president, 1916-1927.

Business Building (1968). School of Business classrooms and offices, together with the Center for Economic Education and Bureau of Business Research.

Eastman Hall (1929). Facilities for physical education and recreation, including a swimming pool and gymnasium. Named for Alvah Eastman, former member of the State University Board.

Education Building (1971). Facilities for secondary, elementary and special education together with psychology, speech pathology and audiology, guidance and counseling and student teaching are located in this building.

Gray Campus Laboratory School (1958, 1962). Elementary school for approximately 225 students. A 200-seat auditorium, children's library and closed-circuit television. Named for Thomas J. Gray, president, 1881-1890.

Halenbeck Hall (1965). Health, physical education and recreation building with a main gymnasium seating 7,500, a swimming pool, diving pool and two small gyms. Named for Dr. Philip L. Halenbeck, a St. Cloud physician.

Headley Hall (1962). College of Industry building with shops, laboratories, classrooms and offices plus a lecture audi-

torium seating 150. Named for John W. Headley, president, 1947-1951.

Kiehle Visual Arts Center (1952, 1974). Former library, remodeled for use by the Art Department. Named for David L. Kiehle, president, 1875-1881.

Mathematics and Science Center (1973). This four-story structure includes, in addition to classrooms and laboratories, a planetarium, museum, green house, observatory, aquarium, computer-calculator room and high energy linear accelerator for nuclear research. It is connected to Brown Hall by an enclosed elevated walkway.

Performing Arts Center (1968). Music, speech and theatre classrooms and offices, with a main theatre seating 485, a studio theatre/recital hall seating 300, rehearsal hall, private practice studios and television studio.

Riverview Building (1911). English Department classrooms and offices and foreign language laboratories.

Stewart Hall (1948). Classrooms, offices, bookstore and an auditorium seating 1,200. Named for Warren H. Stewart, State College Board member, 1938-1948.

SERVICE BUILDINGS

Administrative Services Building (1975). Offices for the president, administrative affairs, academic affairs, institutional relations and part of student life and development. Located at the west entrance to the campus.

Alumni House (1973). Former private residence, acquired by the university in 1973. The facilities are used to provide services for alumni and retired faculty.

Atwood Memorial Center (1966, 1972). Houses dining and recreation facilities and meeting rooms for students and faculty. Named for the Clarence L. Atwood family.

Carol Hall (1946). Originally a private home, then a women's residence hall, now an office building. Named for Carol Selke, wife of President George A. Selke.

Centennial Hall Learning Resources Center (1971). Houses the Learning Resources Center which includes all materials and services usually found in the library and audiovisual services; a random/remote access information system; classrooms and laboratories for the Department of Library and Audiovisual Education; and Computer Services. Ground was broken during the university's Centennial year, 1969.

Garvey Commons (1962, 1965). Two dining rooms with cafeteria service seating 500 at one time. Named for Beth Porter Garvey, first dean of women.

Lawrence Hall (1905). Faculty office building. Oldest structure on campus. Named for Isabel Lawrence, president, 1915-1916.

Maintenance Building (1964). Provides shops, warehouse and vehicle storage for the campus. Attached to the Heating Plant.

Whitney House (1956). Former residence now used for offices. A gift to the university from the heirs of A. G. Whitney.

RESIDENCE HALLS

Benton Hall (1967, 1968). Apartment-type residence for men and women. 300 beds. Named for Benton County.

Case Hall (1964). Men's residence hall with 200 beds. Named for Marie E. Case, former faculty member.

Hill Hall (1962). Women's residence hall with 200 beds. Named for Helen Hill, former faculty member.

Holes Hall (1965). First high-rise with nine stories, housing 400 men and women. Named for W. W. Holes, former member of the State University Board.

Mitchell Hall (1957, 1959). Women's residence hall with 420 beds. Named for W. B. Mitchell, former resident director.

Sherburne Hall (1969). Tallest building on campus, housing 504 men and women. Named for Sherburne County.

Shoemaker Hall (1915, 1960). Capacity for 520 students. Named for Waite A. Shoemaker, president, 1902-1916.

Stearns Hall (1966). Companion building to Holes Hall housing 400 men and women. Named for Stearns County.

OTHER PROPERTIES

Beaver Islands. A group of islands in the Mississippi River one-half mile south of the campus used for the study of plant and animal life. Named by Zebulon Pike, who explored the area in 1805.

George W. Friedrich Park. This 130-acre tract one mile east of the campus contains granite quarry ponds and extensive pine plantings used for nature study and recreation. Named for George W. Friedrich, former faculty member.

Minnesota Highway Safety Center. Designed by the Minnesota Department of Highways, this facility is used to teach emergency driving techniques and for vehicle testing and research. It is located on a portion of 655 acres of unimproved state land placed in the custody of the university in 1970. The remainder of the property, adjoining Highway 10 east of the St. Cloud Reformatory, is used by the university for environmental studies.

Selke Field. Varsity athletic field containing a baseball diamond, cinder track and football field, enclosed by a granite wall. Named for George A. Selke, president, 1927-1943.

Talahi Woods. This upper river terrace area is being preserved as an oak savannah and is to be retained in its natural condition for biological study.



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ST. CLOUD STATE UNIVERSITY
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